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MULTIPLE INPUT PRODUCTIVITY INDEXES

Volume 4 No. 3 January 1984

THIRD QUARTER UPDATE

1982 Productivity Growth Rates (Annual Percent of Change)

	Total Factor Productivity	Labor Productivity	Capital Productivity	Capital/Labor Ratio
Private business economy	-0.4%	1.2%	-3.6%	5.0%
Segments:				
Farming	5.9	7.7	4.3	3.3
Manufacturing	-0.9	2.3	-8.1	11.3
Non-farm/non manufacturing	-0.3	0.8	-2.0	2.9
Sectors:				
Goods-producing	-0.4	1.9	-6.7	4.3
Services-producing	0.0	0.9	-1.3	2.2

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Output Increases Continue to Boost Labor Productivity

Third quarter 1983 productivity statistics were almost uniformly favorable. Labor productivity of the business economy improved 3.5% (annualized rate), down from 5.4% in the second quarter but otherwise impressive. This is the fifth consecutive quarter of labor productivity increases and the third straight in which an output increase rather than a labor input decrease was the dominant factor.

Until the third quarter, the recovery was being led by manufacturing with important support from service industries but a negative contribution from the non-manufacturing goods producers (construction, mining, and farming). In the third quarter, this group turned positive but the service producers had a more-than-offsetting reversal. Service industry productivity declined at an annual rate of -0.9%; made up of a 2.9% increase in output, but a 3.7% increase in labor input.

As the goods producers soar to new highs, it is sobering to note that service industry labor productivity in the third quarter 1983 is still at the same level as second quarter 1978, in spite of an apparent flurry of activity in service industry companies.

The story is similar in total factor productivity, which in the business economy increased 4.5%, down from 7.0% in the second quarter. Recent improvements in total factor productivity are greater than those in labor productivity, because capital productivity is improving very rapidly due to drastically improved capacity utilization in goods-producing industries (except farming).

Service industry capital productivity declined 0.1% in the third quarter, after having spurted at a 10.2% rate in the second quarter. Service industry capital productivity level is still at the level of the early 1960s. Combining the declines in both labor and capital productivity, service industry total factor productivity declined 0.6% in the third quarter.

To summarize, it is worth comparing third quarter 1983 data with the recession bottom of fourth quarter 1982:

	PERCENT INCREASE SINCE 4Q 82		
	O/L	O/C	O/L+ C
Private Business Economy	2.7%	4.8%	3.5%
Goods Producers	3.0	8.3	4.4
Service Producers	2.4	2.6	2.4

Table VII
Quarterly Indexes of Productivity
1982 II to 1983 III
Total Factor, Labor, Capital and Capital/Labor Ratio
(1977=100)

1. **Business Economy**

		Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1982	II	98.0	100.7	93.2	108.0
	III	98.0	101.1	92.5	109.3
	IV	98.2	101.9	91.6	111.2
1983	I	98.8	102.5	92.3	111.1
	II	100.5	103.9	94.5	109.9
	III	101.6	104.7	96.0	109.1
1982		98.1	101.2	91.9	110.9
Percent Change: (Annual Rate)					
1982	II	-2.1	-1.6	-3.0	1.5
	III	0.0	1.7	-3.1	4.9
	IV	0.8	3.3	-3.7	7.3
1983	I	2.3	2.0	2.7	-0.7
	II	7.0	5.4	10.1	-4.3
	III	4.5	3.5	6.4	-2.7
1982		-1.7	-0.1	-4.6	4.7

2. **Goods Producing Industries**

1982	II	98.1	102.0	87.3	116.9
	III	98.7	103.2	86.4	119.5
	IV	100.7	106.0	86.3	122.8
1983	I	101.0	105.8	87.7	120.7
	II	102.0	106.5	89.8	118.6
	III	105.1	109.2	93.5	116.7
1982		99.3	103.5	87.5	118.9
Percent Change: (Annual Rate)					
1982	II	-4.2	-2.9	-7.6	5.1
	III	2.5	4.9	-4.0	9.3
	IV	8.2	11.4	-0.2	11.6
1983	I	1.1	-0.7	6.3	-6.6
	II	4.3	2.4	10.0	-6.9
	III	12.4	10.5	17.8	-6.1
1982		-1.5	0.6	-7.2	8.4

Table VII (Cont'd)
Quarterly Indexes of Productivity
1982 II to 1983 III
Total Factor, Labor, Capital and Capital/Labor Ratio
(1977=100)

3. Service Producing Industries

		Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1982	II	98.6	99.6	97.5	102.1
	III	98.3	99.5	97.0	102.7
	IV	97.6	99.2	95.5	103.9
1983	I	98.1	100.1	95.7	104.6
	II	100.2	101.9	98.0	103.9
	III	100.0	101.6	98.0	103.7
1982		98.1	99.6	96.0	103.8
Percent Change: (Annual Rate)					
1982	II	-0.4	-0.7	0.1	-0.9
	III	-1.1	-0.3	-2.4	2.1
	IV	-3.1	-1.3	-5.8	4.7
1983	I	2.5	3.7	0.7	2.9
	II	8.4	7.3	10.2	-2.7
	III	-0.6	-0.9	-0.1	-0.8
1982		-1.4	-0.5	-2.8	2.3

4. Nonfinancial Corporate Business

1982	II	100.9	102.3	97.6	104.8
	III	101.5	103.2	97.1	106.3
	IV	101.3	103.4	96.3	107.4
1983	I	102.4	104.3	97.8	106.6
	II	104.5	105.9	101.0	104.9
	III	106.0	107.3	102.9	104.2
1982		101.3	102.8	97.4	105.5
Percent Change: (Annual Rate)					
1982	II	-1.2	-0.5	-2.8	2.4
	III	2.2	3.8	-2.0	6.0
	IV	-0.5	0.6	-3.4	4.2
1983	I	4.2	3.4	6.5	-2.9
	II	8.5	6.5	13.7	-6.3
	III	5.9	5.2	7.8	-2.4
1982		-0.7	0.5	-3.8	4.5

Table VII (Cont'd)
Quarterly Indexes of Productivity
1982 II to 1983 III
Total Factor, Labor, Capital and Capital/Labor Ratio
(1977=100)

5. **Farming**

		Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1982	II	115.0	122.7	108.3	113.3
	III	110.1	117.5	103.8	113.2
	IV	127.2	137.1	118.8	115.4
1983	I	119.2	124.5	114.4	108.8
	II	113.0	116.3	110.1	105.6
	III	111.7	117.5	106.5	110.3
1982		120.7	127.9	113.7	112.5
Percent Change: (Annual Rate)					
1982	II	-37.7	-33.9	-40.9	11.9
	III	-15.9	-16.0	-15.7	-0.3
	IV	77.8	85.3	71.6	8.0
1983	I	-22.9	-32.0	-13.9	-21.0
	II	-19.0	-23.8	-14.3	-11.2
	III	-4.8	4.2	-12.4	19.0
1982		-2.3	-0.8	-3.7	3.1

6. **Manufacturing Industry**

1982	II	99.1	105.3	84.3	125.0
	III	100.6	107.8	84.0	128.2
	IV	100.1	108.1	82.1	131.7
1983	I	102.3	110.2	84.6	130.2
	II	105.3	112.6	88.4	127.4
	III	108.8	115.7	92.4	125.2
1982		99.7	106.5	83.7	127.3
Percent Change: (Annual Rate)					
1982	II	-0.7	0.8	-4.2	5.3
	III	6.3	9.6	-1.2	10.9
	IV	-2.1	1.2	-9.1	11.3
1983	I	9.5	8.0	12.9	-4.4
	II	12.0	9.0	19.1	-8.5
	III	13.9	11.6	19.5	-6.6
1982		-1.5	-1.2	-7.8	9.8

Table VII (Cont'd)
Quarterly Indexes of Productivity
1982 II to 1983 III
Total Factor, Labor, Capital and Capital/Labor Ratio
(1977=100)

7. Nonfarm Nonmanufacturing Industry

		Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1982	II	97.0	98.0	95.6	102.5
	III	96.7	98.0	94.8	103.3
	IV	96.6	98.4	93.9	104.8
1983	I	96.8	98.8	93.8	105.3
	II	98.2	100.0	95.4	104.8
	III	98.2	99.8	95.8	104.2
1982		96.7	98.1	94.2	104.2
Percent Change: (Annual Rate)					
1982	II	-0.4	-0.6	-0.1	-0.4
	III	-1.4	-0.3	-3.4	3.1
	IV	-0.4	1.7	-4.0	5.9
1983	I	0.9	1.7	-0.4	2.1
	II	5.9	5.1	7.3	-2.1
	III	-0.1	-0.9	1.3	-2.1
1982		-1.4	-0.3	-3.2	2.0

Note: Percent changes are average annual rates of change from the previous quarter. Output and labor are revised, as published by the Bureau of Labor Statistics, Department of Labor, November 30, 1983, "Productivity and Costs" release.

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MULTIPLE INPUT PRODUCTIVITY INDEXES

Volume 4 No. 4

FOURTH QUARTER UPDATE

1982 Productivity Growth Rates (Annual Percent of Change)

	Total Factor Productivity	Labor Productivity	Capital Productivity	Capital/Labor Ratio
Private business economy	-0.4%	1.2%	-3.6%	5.0%
Segments:				
Farming	5.9	7.7	4.3	3.3
Manufacturing	-0.9	2.3	-8.1	11.3
Non-farm/non manufacturing	-0.3	0.8	-2.0	2.9
Sectors:				
Goods-producing	-0.4	1.9	-6.7	4.3
Services-producing	0.0	0.9	-1.3	2.2

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MULTIPLE INPUT PRODUCTIVITY INDEXES

A Fourth Quarter Update to Volume 4, Number 1

INCLUDING AVERAGE ANNUAL GROWTH RATES
AND INDEXES FOR LABOR, CAPITAL AND TOTAL
FACTOR PRODUCTIVITY IN THE MAJOR INDUSTRY
SEGMENTS.

Productivity Recovery Continues in Fourth Quarter '83

In the fourth quarter of 1983, the private business economy continued the pattern of strong growth that it registered throughout earlier quarters of that year in both labor and total factor productivity. On an annualized basis the increases were 2.4 percent in total factor and 2.2 percent in labor productivity. The business economy drew its strength primarily from the performance of goods-producing industries while service-producers ended the year sagging for the second consecutive quarter.

	Fourth Quarter 1983	
	Total Factor Productivity	Labor Productivity
Business Economy	2.4	2.2
Goods-Producers	8.7	9.0
Service-Producers	-1.2	-2.0

Solid improvements in capital productivity for both the economy as a whole (2.9 percent) and the goods-producers (7.9 percent) were indicative of the increases in utilization of existing plant and equipment in response to the 1983 economic recovery. Service-producing industries, however, recorded a slight drop (-0.1 percent) in capital productivity as '83 drew to a close.

This edition also presents preliminary annual 1983 data for the major segments of the economy. (Finalized figures for the segments as well as industry groups will be available in July.) A look at annual rates for the past four years traces the effects of the recession and ensuing recovery:

BUSINESS ECONOMY
% Improvement over Previous Year

	1980	1981	1982	1983
Labor Productivity	-0.6	2.4	-0.1	2.6
Capital Productivity	-3.8	0.2	-4.6	2.1
Total Factor Productivity	-1.6	1.6	-1.7	2.4

GOODS
% Improvement over Previous Year

	1980	1981	1982	1983
Labor Productivity	-0.7	4.0	0.6	3.6
Capital Productivity	-6.6	-0.4	-7.2	4.4
Total Factor Productivity	-2.1	3.2	-1.5	3.8

	MANUFACTURING (Subset of Goods) % Improvement over Previous Year			
	1980	1981	1982	1983
Labor Productivity	0.2	4.0	1.2	6.5
Capital Productivity	-7.7	-0.4	-7.8	6.6
Total Factor Productivity	-2.0	3.2	-1.5	6.5

	SERVICES % Improvement over Previous Year			
	1980	1981	1982	1983
Labor Productivity	-0.4	1.3	-0.5	1.8
Capital Productivity	-1.9	0.1	-2.8	0.8
Total Factor Productivity	-1.0	0.8	-1.4	1.4

Table I
Multiple Input Productivity
By Major Segment of the Economy
(Selected Periods, 1948 - 83)

	Average Annual Rates of Change				
	1948-83	1948-65	1965-73	1973-79	1979-83
1. Total Factor Productivity					
Business Economy	1.8%	2.6%	1.7%	0.4%	0.2%
Goods Producing Industries	2.4	3.5	2.3	0.4	0.8
Service Producing Industries	1.3	1.8	1.3	0.6	0.0
Farming	3.2	4.1	3.1	1.8	2.0
Manufacturing Industry	2.0	2.6	2.3	0.7	1.3
Nonfarm Nonmanufacturing Industry	1.2	1.9	1.1	0.2	-0.3
Nonfinancial Corporate Business	1.8	2.6	1.5	0.7	0.7
2. Labor Productivity (Output per hour worked)					
Business Economy	2.4%	3.2%	2.4%	0.8%	1.1%
Goods Producing Industries	2.9	4.0	2.7	0.8	1.8
Service Producing Industries	1.8	2.3	2.1	0.8	0.6
Farming	4.5	5.3	4.8	3.2	2.3
Manufacturing Industry	2.7	3.0	2.8	1.5	2.8
Nonfarm Nonmanufacturing Industry	1.7	2.4	1.8	0.4	0.4
Nonfinancial Corporate Business	2.2	3.1	2.1	0.7	1.3
3. Capital Productivity (Output per unit of capital input)					
Business Economy	0.1%	0.8%	0.1%	-0.4%	-1.6%
Goods Producing Industries	0.2	1.1	0.8	-1.3	-2.4
Service Producing Industries	0.1	0.5	-0.2	0.3	-1.0
Farming	0.1	-0.3	0.0	0.1	1.7
Manufacturing Industry	-0.1	0.9	0.3	-1.7	-2.6
Nonfarm Nonmanufacturing Industry	-0.1	0.4	-0.4	-0.1	-1.5
Nonfinancial Corporate Business	0.3	0.9	-0.1	0.4	-1.1

Table II

Outputs, Inputs and Capital-Labor Ratio
By Major Segment of the Economy
(Selected Periods, 1948 - 83)

	Average Annual Rates of Change				
	1948-83	1948-65	1965-73	1973-79	1979-83
1. Output (Real product, in 1972 dollars)					
Business Economy	3.2%	3.6%	3.9%	2.7%	0.7%
Goods Producing Industries	2.7	3.6	3.3	1.6	-0.7
Service Producing Industries	3.5	3.6	4.3	3.6	1.7
Farming	1.2	0.9	0.9	1.6	2.1
Manufacturing Industry	3.2	4.0	4.1	2.0	-0.3
Nonfarm Nonmanufacturing Industry	3.3	3.6	3.9	3.1	1.1
Nonfinancial Corporate Business	4.0	4.6	5.0	3.0	0.5
2. Labor Input (Hours worked)					
Business Economy	0.8%	0.4%	1.4%	1.9%	-0.4%
Goods Producing Industries	-0.2	-0.4	0.6	0.8	-2.5
Service Producing Industries	1.7	1.2	2.1	2.8	1.1
Farming	-3.2	-4.2	-3.7	-1.5	-0.3
Manufacturing Industry	0.5	1.0	1.2	0.5	-3.0
Nonfarm Nonmanufacturing Industry	1.6	1.2	2.1	2.8	0.7
Nonfinancial Corporate Business	1.7	1.5	2.9	2.3	-0.8

Table II (Cont'd)

Outputs, Inputs and Capital-Labor Ratio
By Major Segment of the Economy
(Selected Periods, 1948 - 83)

	Average Annual Rates of Change				
	1948-83	1948-65	1965-73	1973-79	1979-83
3. Capital Input					
Business Economy	3.0%	2.8%	3.8%	3.2%	2.4%
Goods Producing Industries	2.5	2.4	2.5	3.0	1.7
Service Producing Industries	3.4	3.1	4.5	3.3	2.7
Farming	1.1	1.2	0.9	1.5	0.3
Manufacturing Industry	3.2	3.1	3.7	3.8	2.3
Nonfarm Nonmanufacturing Industry	3.4	3.2	4.3	3.3	2.7
Nonfinancial Corporate Business	3.6	3.7	5.1	2.7	1.6
4. Capital - Labor Ratio					
Business Economy	2.2%	2.4%	2.3%	1.2%	2.7%
Goods Producing Industries	2.7	2.8	1.9	2.1	4.3
Service Producing Industries	1.7	1.8	2.3	0.5	1.5
Farming	4.4	5.7	4.8	3.1	0.6
Manufacturing Industry	2.7	2.1	2.5	3.2	5.5
Nonfarm Nonmanufacturing Industry	1.7	2.0	2.2	0.4	1.9
Nonfinancial Corporate Business	1.9	2.2	2.2	0.4	2.4

Table VII
Quarterly Indexes of Productivity
1982 III to 1983 IV
Total Factor, Labor, Capital and Capital/Labor Ratio
(1977=100)

1. **Business Economy**

		Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1982	III	98.0	101.1	92.5	109.3
	IV	98.2	101.9	91.6	111.2
1983	I	98.8	102.5	92.3	111.0
	II	100.6	103.9	94.7	109.8
	III	101.3	104.2	95.9	108.7
	IV	101.9	104.8	96.6	108.5
1982		98.1	101.2	92.2	109.7
1983		100.4	103.8	94.1	110.3
Percent Change: (Annual Rate)					
1982	III	0.0	1.7	-3.1	4.9
	IV	0.8	3.3	-3.7	7.3
1983	I	2.3	2.0	2.8	-0.7
	II	7.6	5.9	10.8	-4.4
	III	2.7	1.2	5.5	-4.1
	IV	2.4	2.2	2.9	-0.7
1982		-1.7	-0.1	-4.6	4.7
1983		2.4	2.6	2.1	0.5

2. **Goods Producing Industries**

1982	III	98.7	103.2	86.4	119.5
	IV	100.7	106.0	86.3	122.8
1983	I	101.0	105.8	87.7	120.7
	II	102.1	106.5	89.8	118.5
	III	104.3	108.1	93.5	115.6
	IV	106.5	110.5	95.3	115.9
1982		99.3	103.5	87.1	118.9
1983		103.0	107.3	90.9	118.0
Percent Change: (Annual Rate)					
1982	III	2.5	4.9	-4.0	9.3
	IV	8.2	11.4	-0.2	11.6
1983	I	1.1	-0.7	6.3	-6.5
	II	4.4	2.3	10.2	-7.2
	III	9.3	6.5	17.5	-9.4
	IV	8.7	9.0	7.9	1.0
1982		-1.5	0.6	-7.2	8.4
1983		3.8	3.6	4.4	-0.8

Table VII (Cont'd)
Quarterly Indexes of Productivity
1982 III to 1983 IV
Total Factor, Labor, Capital and Capital/Labor Ratio
(1977=100)

		Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
3. Service Producing Industries					
1982	III	98.3	99.5	97.0	102.7
	IV	97.6	99.2	95.5	103.9
1983	I	98.2	100.1	95.7	104.6
	II	100.4	102.1	98.3	103.8
	III	99.9	101.5	98.0	103.6
	IV	99.6	101.0	98.0	103.1
1982		98.1	99.6	96.0	103.8
1983		99.5	101.4	96.7	104.8
Percent Change: (Annual Rate)					
1982	III	-1.1	-0.3	-2.4	2.1
	IV	-3.1	-1.3	-5.8	4.7
1983	I	2.5	3.7	0.8	2.9
	II	9.4	8.1	11.3	-2.8
	III	-1.8	-2.1	-1.3	-0.8
	IV	-1.2	-2.0	-0.1	-1.9
1982		-1.4	-0.5	-2.8	2.3
1983		1.4	1.8	0.8	1.0
4. Nonfinancial Corporate Business					
1982	III	101.5	103.2	97.1	106.3
	IV	101.3	103.4	96.1	107.5
1983	I	102.3	104.3	97.5	106.9
	II	104.4	105.9	100.7	105.2
	III	105.7	107.0	102.6	104.3
	IV	105.9	107.1	103.1	104.0
1982		101.3	102.8	97.4	105.5
1983		104.3	106.1	99.7	106.5
Percent Change: (Annual Rate)					
1982	III	2.2	3.8	-2.0	6.0
	IV	-0.7	0.6	-4.1	4.8
1983	I	4.1	3.4	5.8	-2.2
	II	8.5	6.5	13.8	-6.3
	III	5.1	4.2	7.6	-3.2
	IV	0.8	0.4	1.9	-1.5
1982		-0.7	0.5	-3.8	4.5
1983		3.0	3.2	2.3	0.9

Table VII (Cont'd)
Quarterly Indexes of Productivity
1982 III to 1983 IV
Total Factor, Labor, Capital and Capital/Labor Ratio
(1977=100)

		Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
5. Farming					
1982	III	110.1	117.5	103.8	113.2
	IV	127.2	137.1	118.8	115.4
1983	I	119.2	124.5	114.4	108.8
	II	113.0	116.3	110.1	105.6
	III	105.3	107.0	103.7	103.2
	IV	106.0	113.2	99.8	113.4
1982		120.7	127.9	113.7	112.5
1983		111.0	114.2	107.3	106.4
Percent Change: (Annual Rate)					
1982	III	-15.9	-16.0	-15.7	-0.4
	IV	77.8	85.3	71.6	8.0
1983	I	-22.9	-32.0	-13.9	-21.0
	II	-19.0	-23.8	-14.3	-11.1
	III	-24.8	-28.3	-21.3	-8.9
	IV	2.8	25.3	-14.2	46.0
1982		-2.3	-0.8	-3.7	3.1
1983		-8.1	-10.7	-5.6	-5.4
6. Manufacturing Industry					
1982	III	100.6	107.8	84.0	128.2
	IV	100.1	108.1	82.1	131.7
1983	I	102.3	110.2	84.6	130.2
	II	105.3	112.6	88.5	127.3
	III	109.0	115.9	92.8	124.9
	IV	110.5	117.1	94.8	123.6
1982		99.7	106.5	83.7	127.3
1983		106.2	113.4	89.2	127.2
Percent Change: (Annual Rate)					
1983	III	6.3	9.6	-1.2	10.9
	IV	-2.1	1.2	-9.1	11.3
1983	I	9.5	8.0	12.9	-4.4
	II	12.1	9.0	19.5	-8.8
	III	14.8	12.2	21.1	-7.4
	IV	5.5	4.2	8.7	-4.2
1982		-1.5	1.2	-7.8	9.8
1983		6.5	6.5	6.6	-0.1

Table VII (Cont'd)
Quarterly Indexes of Productivity
1982 III to 1983 IV
Total Factor, Labor, Capital and Capital/Labor Ratio
(1977=100)

7. **Nonfarm Nonmanufacturing Industry**

		Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1982	III	96.7	98.0	94.8	103.3
	IV	96.6	98.4	93.9	104.8
1983	I	96.8	98.8	93.8	105.3
	II	98.4	100.2	95.7	104.7
	III	98.1	99.7	95.7	104.1
	IV	98.0	99.5	95.9	103.7
1982		96.7	98.1	94.2	104.2
1983		97.8	99.7	94.5	105.5
Percent Change: (Annual Rate)					
1982	III	-1.4	-0.3	-3.4	3.1
	IV	-0.4	1.7	-4.0	5.9
1983	I	0.9	1.7	-0.3	2.0
	II	6.8	5.9	8.3	-2.2
	III	-1.4	-2.2	0.1	-2.3
	IV	-0.2	-0.7	0.9	-1.6
1982		-1.4	-0.3	-3.2	3.0
1983		1.2	1.6	0.4	1.2

Note: Percent changes are average annual rates of change from the previous quarter. Output and labor are revised, as published by the Bureau of Labor Statistics, Department of Labor, February 28, 1983, "Productivity and Costs" release. Nonfinancial Corporate Business output and labor hours have been estimated by the APC for 1983 IV. Revisions in capital are based on Department of Commerce estimates.

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MULTIPLE INPUT
PRODUCTIVITY INDEXES

Volume 5 No. 1 ISSN 0741-6490 August 1984

1983 Productivity Growth Rates
(Annual Percent of Change)

	Total Factor Productivity	Labor Productivity	Capital Productivity	Capital/Labor Ratio
Private business economy	2.5%	2.7%	2.0%	0.7%
Segments:				
Farming	−7.7	−10.2	−5.4	−5.2
Manufacturing	6.3	6.2	6.5	−0.3
Non-farm/non-manufacturing	1.3	1.9	0.4	1.5
Sectors:				
Goods-producing	4.7	4.4	5.4	−1.0
Services-producing	1.0	1.6	0.1	1.5

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A NOTE TO USERS OF MULTIPLE-INPUT PRODUCTIVITY INDEXES

This brochure constitutes the initial issue of the American Productivity Center's 1984-85 Multiple-Input Productivity Index. The next three quarterly issues will update data for only selected portions of the economy -- the private business and the major segments. Thus, this issue should be retained as a basic reference for the 1984-85 subscription year.

Another feature of the 1984 series is the presentation of updated indexes of trends for certain three- or four-digit SIC industries -- a service made possible through financial support of individual corporations and industry organizations. Manufacturing industries in the series include: steel, plastic products and four food product groups. 1982 and 1983 data for the four-digit SIC industries have been extrapolated because revised basic data are not yet available from the Bureau of Census and Bureau of Labor Statistics.

For the latter two industry categories (plastics and food products) total[1] as well as total factor productivity data are shown.

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1 The total factor series matches value-added output against the weighted input of labor and capital; "intermediate items" -- purchased materials, energy, components and services -- are excluded from both numerator and denominator. For the "total" productivity series, these purchased inputs are included on both the output and input side, and separate materials and energy productivity ratios may be computed.

Multiple-Input Productivity Indexes Contractor: Noreen Leonard Preston

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SERVICE-PRODUCERS PROVE TO BE DRAG ON ECONOMY DURING 1983

In 1983, for the third consecutive year, the labor productivity gap widened between the services-producing industries and the economy as a whole. While the goods-producers registered a healthy 4.4 percent increase, services could muster only 1.6 percent growth during 1983, thus bringing the overall business economy annual growth rate down to 2.7 percent.

A look at the past three years' output and labor input offer clues to the underlying reasons for this sluggish performance (Figure 1). During that time period of 1980-83, the service-providers behaved as if they considered themselves immuned to the recession and its inevitable impact upon purchasing power and demand. Rather than heeding the economic indicators and stablizing or reducing their labor hours, service industries expanded hours worked by 3.0 percent over the three years. This resulted in a 5.5 percent boost in output, but the net gain in labor productivity was only 2.5 percent. Goods-producers, by contrast, reduced their labor hours sharply (-6.0 percent) and still managed a modest increase in output (2.5 percent) for an increase in the labor productivity ratio of 9.1 percent.

Figure 1

Labor Productivity, 1980-83

	$\frac{O}{L}$	Output	Labor Input
	(Three-year growth)		
Private Business Economy	5.1	4.3	-0.6
Goods-Producers	9.1	2.5	-6.0
Services-Producers	2.5	5.5	3.0

It would be unfair to suggest that every service industry boosted its labor inputs and contributed to the downward productivity trend in this part of the economy. Indeed, rail tansportation, communications and trade logged substantial improvements in labor productivity from 1980-83 (Figure 2). It was largely due to those industries' efforts that the service industries recorded any positive growth at all (2.5 percent) during the recession and subsequent recovery.

Figure 2

Labor Productivity of Service Industries, 1980-83

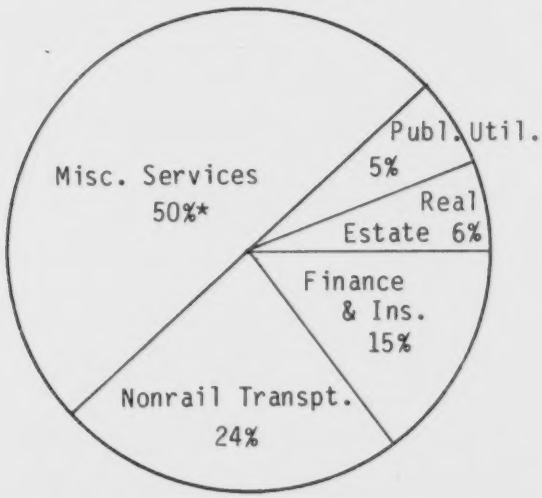
	$\frac{O}{L}$	Output	Labor Input
	(Three-year growth)		
Rail Transportation	27.7	-11.2	-30.3
Communications	12.4	8.6	-3.4
Trade	7.5	7.2	-0.2
Average of All Services	2.5	5.5	3.0
Misc. Services	-0.5	7.8	8.5
Finance & Insurance	-0.9	6.3	7.3
Real Estate	-2.3	4.0	6.5
Public Utilities	-2.6	2.5	5.3
Nonrail Transportation	-6.7	-9.3	-2.8

Drawing down the services' average were finance and insurance, real estate, public utilities, nonrail transportation services and "miscellaneous services," a category including business and professional services, hospitals, computer and data processing services, repair, physicians and health services, etc. In all cases except nonrail transportation, the industries increased the number of hours worked despite sharp declines in output.

The businesses lumped into the miscellaneous category were the biggest culprits. Given the number of hours worked in those industries as compared to the hours totals of other service segments, "miscellaneous services" accounted for 50 percent of the productivity shortfall (Figure 3). Nonrail transportation added nearly another quarter to the deficiency.

Figure 3

Contributors to Services Productivity Shortfall, 1980-83



*Business services, personal services, health services, repairs, hotels & lodging, amusements & recreation, education & social services, etc.

Note: Percentages calculated to include both the relative shortfall of each segment (vs. the 5.1% growth of the Private Business Economy) and the importance of each segment in terms of hours worked.

First quarter 1984 figures suggest that this downward drift among service industries may have been halted. For the first time in four quarters service-producers outperformed goods-producers in labor productivity -- 4.3 percent vs. 3.6 percent. Nonetheless, the growth rate gap created over the past three years will not be closed quickly or easily.

First Quarter 1984 Registers Strong Labor, Total Productivity Growth

In the first quarter of 1984, the private business economy continued the pattern of strong growth that it registered throughout earlier quarters of that year in both labor and total factor productivity. On an annualized basis the increases were 5.6 percent in total factor and 4.1 percent in labor productivity. The business economy drew its total factor productivity strength primarily from the performance of goods-producing industries with service-producers continuing to register what now appears to be a significant shortfall.

	First Quarter 1984	
	Total Factor Productivity	Labor Productivity
Business Economy	5.6	4.1
Goods-Producers	6.1	3.6
Service-Producers	4.6	4.3

Solid improvements in capital productivity for both the economy as a whole (8.3 percent) and the goods-producers (13.7 percent) were indicative of the icreases in utilization of existing plant and equipment in response to the 1983 economic recovery. Again, service-producing industries fell short of these gains with only a 5.0 percent increase in capital productivity.

To understand the relative strength of 1984-I growth, it is important to set it in the context of periods of economic recovery. When compared to the same time periods of the past six recoveries, productivity performance for 1982-IV to 1984-I appears to be only average.

Productivity Performance
Five Quarters after Recession's Trough

Recession's Trough	Fifth Quarter of Recovery	Labor Productivity	Total Factor Productivity
1954-II	1955-III	5.4%	5.7%
1958-II	1959-III	3.6	4.1
1960-IV	1962-I	6.5	5.9
1970-IV	1972-I	4.8	4.5
1975-I	1976-II	6.0	5.9
1980-II	1981-III	3.9	3.2
1982-IV	1984-I	4.3	5.6
	6 recovery average	5.0	4.9
	Last 3 recovery average	4.9	4.5

While labor productivity fell short of the averages for five quarters beyond the recession trough, 1984-I total factor productivity growth was significantly above average. A likely explanation for this is that capacity utilization dropped more dramatically than in previous recessions so the capacity was there for a substantial rebound.

Table I
Multiple Input Productivity
By Major Segment of the Economy
(Selected Periods, 1948 - 83)

	Average Annual Rates of Change				
	1948-83	1948-65	1965-73	1973-79	1979-83
1. Total Factor Productivity					
Business Economy	1.8%	2.6%	1.7%	0.4%	0.2%
Goods Producing Industries	2.4	3.5	2.3	0.4	1.0
Service Producing Industries	1.3	1.8	1.3	0.6	-0.1
Farming	3.2	4.1	3.1	1.8	2.1
Manufacturing Industry	2.0	2.6	2.3	0.7	1.2
Nonfarm Nonmanufacturing Industry	1.2	1.9	1.1	0.1	-0.3
Nonfinancial Corporate Business	1.8	2.6	1.5	0.6	0.7
2. Labor Productivity (Output per hour worked)					
Business Economy	2.4%	3.2%	2.4%	0.8%	1.1%
Goods Producing Industries	2.9	4.0	2.7	0.8	2.0
Service Producing Industries	1.8	2.3	2.1	0.8	0.5
Farming	4.5	5.3	4.8	3.2	2.5
Manufacturing Industry	2.7	3.0	2.8	1.5	2.7
Nonfarm Nonmanufacturing Industry	1.7	2.4	1.8	0.3	0.5
Nonfinancial Corporate Business	2.2	3.1	2.1	0.7	1.3
3. Capital Productivity (Output per unit of capital input)					
Business Economy	0.1%	0.8%	0.1%	-0.4%	-1.7%
Goods Producing Industries	0.3	1.1	0.8	-1.3	-2.1
Service Producing Industries	0.1	0.5	-0.2	0.3	-1.3
Farming	0.1	-0.3	0.0	0.1	1.8
Manufacturing Industry	-0.1	0.9	0.3	-1.7	-2.6
Nonfarm Nonmanufacturing Industry	-0.1	0.4	-0.4	-0.1	-1.6
Nonfinancial Corporate Business	0.3	0.9	-0.1	0.4	-1.0

Table II

Outputs, Inputs and Capital-Labor Ratio
By Major Segment of the Economy
(Selected Periods, 1948 - 83)

	Average Annual Rates of Change				
	1948-83	1948-65	1965-73	1973-79	1979-83
1. Output (Real product, in 1972 dollars)					
Business Economy	3.2%	3.6%	3.9%	2.7%	0.8%
Goods Producing Industries	2.7	3.6	3.3	1.6	-0.5
Service Producing Industries	3.5	3.6	4.3	3.6	1.6
Farming	1.2	0.9	0.9	1.6	2.2
Manufacturing Industry	3.2	4.0	4.1	2.0	-0.3
Nonfarm Nonmanufacturing Industry	3.3	3.6	3.9	3.1	1.2
Nonfinancial Corporate Business	4.0	4.6	5.0	3.0	0.5
2. Labor Input (Hours worked)					
Business Economy	0.8%	0.4%	1.4%	1.9%	-0.4%
Goods Producing Industries	-0.2	-0.4	0.6	0.8	-2.4
Service Producing Industries	1.7	1.2	2.1	2.8	1.1
Farming	-3.2	-4.2	-3.7	-1.5	-0.3
Manufacturing Industry	0.5	1.0	1.2	0.5	-3.0
Nonfarm Nonmanufacturing Industry	1.6	1.2	2.1	2.8	0.7
Nonfinancial Corporate Business	1.7	1.5	2.9	2.3	-0.8

Table II (Cont'd)

Outputs, Inputs and Capital-Labor Ratio
By Major Segment of the Economy
(Selected Periods, 1948 - 83)

	Average Annual Rates of Change				
	1948-83	1948-65	1965-73	1973-79	1979-83
3. Capital Input					
Business Economy	3.0%	2.8%	3.8%	3.2%	2.5%
Goods Producing Industries	2.5	2.4	2.5	3.0	1.7
Service Producing Industries	3.4	3.1	4.5	3.3	2.9
Farming	1.1	1.2	0.9	1.5	0.4
Manufacturing Industry	3.2	3.1	3.7	3.8	2.3
Nonfarm Nonmanufacturing Industry	3.4	3.2	4.3	3.3	2.8
Nonfinancial Corporate Business	3.6	3.7	5.1	2.7	1.6
4. Capital - Labor Ratio					
Business Economy	2.2%	2.4%	2.3%	1.2%	2.8%
Goods Producing Industries	2.6	2.8	1.9	2.1	4.2
Service Producing Industries	1.7	1.8	2.3	0.5	1.8
Farming	4.4	5.7	4.8	3.1	0.6
Manufacturing Industry	2.7	2.1	2.5	3.2	5.5
Nonfarm Nonmanufacturing Industry	1.8	2.0	2.2	0.4	2.1
Nonfinancial Corporate Business	1.9	2.2	2.2	0.4	2.4

Table III a.

Total Factor Productivity
By Major Industries of the Economy
(Selected Periods, 1948 - 83)

	Average Annual Rates of Change				
	1948-83	1948-65	1965-73	1973-79	1979-83
Business Economy	1.8%	2.6%	1.7%	0.4%	-0.2%
Goods Producing Industries	2.4	3.5	2.3	0.4	1.0
Service Producing Industries	1.3	1.8	1.3	0.6	-0.1
Farming	3.2	4.1	3.1	1.8	2.1
Manufacturing	2.0	2.6	2.3	0.7	1.2
Food	2.9	2.9	4.1	0.1	4.4
Tobacco	1.0	2.3	2.1	0.3	-5.3
Textiles	3.6	3.9	3.0	3.7	3.5
Apparel	2.5	2.0	3.0	3.1	2.6
Lumber	2.8	4.5	1.3	0.2	2.8
Furniture	1.9	2.1	0.8	3.3	0.8
Paper	2.1	2.2	4.0	0.0	0.9
Printing & Publishing	1.2	2.4	1.0	-1.2	0.3
Chemicals	3.1	3.9	4.2	1.2	0.5
Petroleum	0.9	3.4	2.0	-3.3	-5.3
Rubber	1.8	2.3	2.0	-0.5	2.6
Leather	1.2	1.0	1.7	1.2	0.9
Stone, Clay & Glass	1.4	2.0	0.9	0.1	1.7
Primary Metals	0.2	0.9	0.9	-2.0	-0.6
Fabricated Metals	1.5	1.7	1.3	1.1	1.4
Machinery, exc. Elec.	1.4	1.4	1.4	0.8	2.0
Electrical Machinery	3.6	4.3	2.8	3.2	2.3
Transportation Equipment	2.0	3.4	2.3	0.2	-1.8
Instruments	2.7	3.6	2.5	0.9	2.0
Miscellaneous Manufac.	2.4	2.3	3.6	1.9	1.3
Nonfarm Nonmanufacturing	1.2	1.9	1.1	0.1	-0.3
Mining	0.6	2.3	1.7	-4.1	-1.8
Construction	0.3	2.4	-1.0	-3.0	-0.9
Transportation	1.5	2.0	2.4	1.2	-2.1
Railroad	2.9	4.2	1.2	0.4	4.7
Nonrail	0.7	0.5	2.7	1.2	-3.6
Communications	4.2	5.4	3.2	3.8	1.6
Public Utilities	2.6	5.5	1.5	-1.0	-2.3
Trade	2.0	2.4	2.6	0.7	1.1
Finance & Insurance	0.1	1.0	0.3	-1.1	-2.0
Real Estate	1.3	1.9	0.0	2.6	-0.6
Services	0.1	0.3	-0.2	-0.1	0.3
Nonfinancial Corporate Business	1.8	2.6	1.5	0.6	0.7

Table III b.

Labor Productivity
(Output per Hour)
By Major Industries of the Economy
(Selected Periods, 1948 - 83)

	Average Annual Rates of Change				
	1948-83	1948-65	1965-73	1973-79	1979-83
Business Economy	2.4	3.2%	2.4%	0.8%	1.1%
Goods Producing Industries	2.9	4.0	2.7	0.8	2.0
Service Producing Industries	1.8	2.3	2.1	0.8	0.5
Farming	4.5	5.3	4.8	3.2	2.5
Manufacturing	2.7	3.0	2.8	1.5	2.7
Food	3.3	3.2	4.6	0.6	5.0
Tobacco	3.2	4.0	4.0	2.6	-1.2
Textiles	4.5	5.0	3.3	4.5	4.7
Apparel	2.7	2.0	3.3	3.5	3.0
Lumber	3.2	4.3	1.8	1.4	4.1
Furniture	2.1	2.1	1.1	3.9	1.1
Paper	2.8	2.5	4.5	1.3	2.5
Printing & Publishing	1.4	2.4	1.5	-0.8	0.8
Chemicals	4.1	4.8	4.8	2.5	2.0
Petroleum	2.9	5.5	3.3	-1.9	-1.7
Rubber	2.1	2.5	2.2	0.0	3.1
Leather	1.5	1.2	2.2	1.6	1.6
Stone, Clay & Glass	2.1	2.6	1.2	0.9	3.6
Primary Metals	1.1	1.5	1.5	-1.3	2.7
Fabricated Metals	1.9	2.1	1.5	1.3	2.7
Machinery, exc. Elec.	2.0	1.7	2.0	1.3	4.1
Electrical Machinery	4.0	4.5	3.4	3.8	3.6
Transportation Equipment	2.7	3.6	3.1	1.0	0.4
Instruments	3.2	3.8	3.1	1.2	3.4
Miscellaneous Manufac.	2.9	2.8	4.0	2.2	2.3
Nonfarm Nonmanufacturing	1.7	2.4	1.8	0.3	0.5
Mining	1.5	4.3	2.4	-5.3	-1.1
Construction	0.4	2.6	-0.9	-3.0	-0.8
Transportation	1.8	2.3	2.6	1.3	-1.5
Railroad	3.6	4.8	1.7	0.4	7.4
Nonrail	1.0	0.8	3.2	1.6	-3.1
Communications	5.6	6.5	4.8	5.3	3.8
Public Utilities	4.2	6.9	3.8	0.7	-1.3
Trade	2.4	2.8	3.2	1.0	1.5
Finance & Insurance	0.9	1.3	1.2	-0.1	0.0
Real Estate	0.5	1.2	0.1	-0.1	-1.2
Services	0.4	0.9	0.3	-0.4	0.3
Nonfinancial Corporate Business	2.2	3.1	2.1	0.7	1.3

Table III c.

Capital Productivity
(Output per Unit Capital)
By Major Industries of the Economy
(Selected Periods, 1948 - 83)

	Average Annual Rates of Change				
	1948-83	1948-65	1965-73	1973-79	1979-83
Business Economy	0.1%	0.8%	0.1%	-0.4%	-1.7%
Goods Producing Industries	0.3	1.1	0.8	-1.3	-2.1
Service Producing Industries	0.1	0.5	-0.2	0.3	-1.3
Farming	0.1	-0.3	0.0	0.1	1.8
Manufacturing	-0.1	0.9	0.3	-1.7	-2.6
Food	1.5	2.1	2.5	-1.9	2.4
Tobacco	-1.7	-1.4	0.4	-1.3	-7.5
Textiles	-0.2	-1.6	1.5	1.1	0.1
Apparel	0.4	1.3	-0.9	-0.3	0.1
Lumber	1.6	5.2	-1.4	-3.3	-0.2
Furniture	0.7	2.0	-1.2	0.4	-0.7
Paper	0.5	1.5	2.5	-3.1	-2.1
Printing & Publishing	0.3	2.6	-1.7	-2.4	-1.3
Chemicals	1.4	2.2	3.1	-1.1	-1.6
Petroleum	-0.6	1.5	0.9	-4.1	-7.1
Rubber	0.6	1.3	1.0	-2.3	0.8
Leather	-1.7	-0.7	-3.0	-1.9	-3.0
Stone, Clay & Glass	-0.8	-0.1	-0.1	-2.3	-2.9
Primary Metals	-2.7	-1.7	-1.0	-4.2	-8.2
Fabricated Metals	-1.5	-1.2	-0.3	-2.3	-3.9
Machinery, exc. Elec.	-1.2	-0.6	-1.1	-1.3	-4.0
Electrical Machinery	1.3	3.5	-0.7	0.5	-2.0
Transportation Equipment	-0.1	2.8	-1.0	-2.1	-6.8
Instruments	0.9	1.8	0.4	0.3	-1.1
Miscellaneous Manufac.	-0.1	-0.6	2.0	0.3	-2.2
Nonfarm Nonmanufacturing	-0.1	0.4	-0.4	-0.1	-1.6
Mining	-1.5	-2.0	0.7	-2.4	-2.8
Construction	-2.0	-1.7	-2.7	-2.4	-1.9
Transportation	-0.1	-0.1	1.3	0.9	-4.5
Railroad	-0.7	-0.3	-1.1	0.2	-2.8
Nonrail	-1.4	-1.4	0.0	-0.5	-5.4
Communications	0.6	0.3	0.8	2.0	-0.5
Public Utilities	0.6	2.8	-0.5	-2.1	-2.8
Trade	-1.1	-1.1	-1.4	-0.7	-1.2
Finance & Insurance	-3.6	-1.4	-4.6	-5.3	-8.0
Real Estate	1.4	1.9	0.0	2.9	-0.6
Services	-0.7	-1.2	-1.1	0.4	0.5
Nonfinancial Corporate Business	0.3	0.9	-0.1	0.4	-1.0

Table III d.

Capital - Labor Ratio
By Major Industries of the Economy
(Selected Periods, 1948 - 83)

	Average Annual Rates of Change				
	1948-83	1948-65	1965-73	1973-79	1979-83
Business Economy	2.2%	2.4%	2.3%	1.2%	2.8%
Goods Producing Industries	2.6	2.8	1.9	2.1	4.2
Service Producing Industries	1.7	1.8	2.3	0.5	1.8
Farming	4.4	5.7	4.8	3.1	0.6
Manufacturing	2.7	2.1	2.5	3.2	5.5
Food	1.7	1.1	2.0	2.6	2.5
Tobacco	5.0	5.5	3.7	4.0	6.7
Textiles	4.7	6.7	1.8	3.4	4.6
Apparel	2.3	0.6	4.2	3.8	3.0
Lumber	1.6	-0.9	3.2	4.9	4.3
Furniture	1.4	0.1	2.4	3.4	1.8
Paper	2.2	1.0	2.0	4.5	4.8
Printing & Publishing	1.1	-0.2	3.3	1.6	2.1
Chemicals	2.7	2.5	1.7	3.6	3.6
Petroleum	3.5	4.0	2.4	2.3	5.8
Rubber	1.5	1.1	1.2	2.3	2.3
Leather	3.3	1.9	5.3	3.6	4.7
Stone, Clay & Glass	2.9	2.7	1.3	3.3	6.7
Primary Metals	4.0	3.2	2.5	2.9	11.8
Fabricated Metals	3.5	3.4	1.8	3.7	6.9
Machinery, exc. Elec.	3.3	2.4	3.1	2.6	8.5
Electrical Machinery	2.6	0.9	4.2	3.3	5.7
Transportation Equipment	2.7	0.8	4.2	3.2	7.7
Instruments	2.3	2.0	2.7	1.0	4.5
Miscellaneous Manufac.	3.0	3.5	2.0	1.9	4.6
Nonfarm Nonmanufacturing	1.8	2.0	2.2	0.4	2.1
Mining	3.1	6.3	1.7	-3.0	1.8
Construction	2.5	4.3	1.8	-0.6	1.2
Transportation	1.9	2.4	1.3	0.4	3.1
Railroad	4.3	5.1	2.8	0.2	10.5
Nonrail	2.4	2.2	3.2	2.1	2.4
Communications	4.9	6.2	3.9	3.2	4.4
Public Utilities	3.6	4.0	4.3	2.8	1.5
Trade	3.6	3.9	4.7	1.7	2.8
Finance & Insurance	4.6	2.8	6.1	5.5	8.6
Real Estate	-0.9	-0.7	0.1	-2.9	-0.6
Services	1.2	2.1	1.4	-0.8	-0.3
Nonfinancial Corporate Business	1.9	2.2	2.2	0.4	2.4

TABLE IV. BUSINESS ECONOMY AND MAJOR SECTORS

1. Business Economy

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	37.2	80.7	41.4	68.0	54.6	46.0	89.7	51.3
1949	36.5	78.1	42.1	66.4	54.9	46.7	86.6	54.0
1950	39.8	78.9	43.5	67.5	59.0	50.4	91.5	55.1
1951	42.1	81.3	45.0	69.5	60.6	51.8	93.6	55.3
1952	43.5	81.4	46.1	69.9	62.2	53.5	94.4	56.6
1953	45.4	82.2	47.1	70.8	64.1	55.2	96.2	57.4
1954	44.6	79.5	48.1	69.3	64.3	56.1	92.6	60.6
1955	48.1	82.5	49.9	71.9	66.9	58.3	96.5	60.4
1956	49.3	83.7	51.3	73.2	67.4	58.9	96.1	61.3
1957	49.8	82.5	52.8	72.8	68.4	60.4	94.4	64.0
1958	49.0	78.8	53.8	70.6	69.5	62.3	91.2	68.3
1959	52.6	81.9	55.3	73.2	71.9	64.2	95.1	67.6
1960	53.5	82.0	56.7	73.8	72.5	65.2	94.2	69.2
1961	54.5	80.8	58.1	73.4	74.1	67.3	93.6	72.0
1962	57.4	82.1	59.9	74.8	76.7	69.9	95.8	73.0
1963	59.9	82.6	61.7	75.8	79.0	72.5	97.1	74.7
1964	63.5	83.9	63.8	77.4	82.0	75.6	99.4	76.1
1965	67.8	86.6	66.4	80.0	84.8	78.3	102.2	76.6
1966	71.5	88.6	69.3	82.3	86.9	80.7	103.2	78.2
1967	73.1	88.6	71.9	83.1	87.9	82.5	101.7	81.2
1968	76.8	90.1	74.7	85.1	90.3	85.3	102.9	82.9
1969	79.0	92.5	77.7	87.6	90.2	85.5	101.7	84.0
1970	78.4	91.0	80.2	87.4	89.6	86.2	97.8	88.1
1971	80.7	90.5	82.7	87.9	91.8	89.2	97.6	91.4
1972	86.1	93.2	85.5	90.7	94.9	92.4	100.6	91.8
1973	91.7	96.8	89.1	94.3	97.3	94.7	102.9	92.0
1974	89.9	97.3	92.2	95.6	94.1	92.5	97.6	94.8
1975	88.2	93.3	94.2	93.6	94.2	94.5	93.6	101.0
1976	93.8	96.0	96.8	96.3	97.4	97.6	96.9	100.8
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	105.5	104.9	103.4	104.4	101.0	100.6	102.0	98.6
1979	107.8	108.5	107.4	108.1	99.7	99.4	100.4	99.0
1980	106.5	107.6	110.4	108.5	98.1	98.9	96.4	102.6
1981	109.8	108.4	113.8	110.1	99.7	101.3	96.5	105.0
1982	106.7	105.4	116.0	108.9	98.0	101.2	91.9	110.0
1983	111.1	107.0	118.5	110.7	100.4	103.9	93.8	110.8

TABLE IV. BUSINESS ECONOMY AND MAJOR SECTORS

2. Goods Producing Sector

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	41.1	104.5	49.2	90.3	45.5	39.3	83.5	47.1
1949	39.2	98.6	49.8	86.2	45.5	39.8	78.8	50.4
1950	44.0	100.6	51.5	88.1	49.9	43.7	85.4	51.2
1951	48.0	104.2	54.0	91.4	52.5	46.1	89.0	51.8
1952	49.5	103.7	55.6	91.5	54.1	47.7	88.9	53.7
1953	52.4	104.3	56.8	92.3	56.8	50.2	92.2	54.5
1954	50.1	97.6	57.8	87.7	57.1	51.3	86.7	59.2
1955	54.7	102.0	60.0	91.5	59.8	53.6	91.2	58.8
1956	55.6	102.5	61.8	92.4	60.2	54.3	90.0	60.3
1957	55.7	99.2	63.4	90.3	61.6	56.1	87.9	63.9
1958	52.7	91.7	64.1	85.0	62.0	57.5	82.2	69.9
1959	57.3	96.1	65.6	88.7	64.6	59.6	87.3	68.3
1960	57.9	94.8	66.7	88.0	65.8	61.1	86.9	70.3
1961	58.1	91.9	67.6	86.1	67.5	63.2	85.9	73.6
1962	61.8	93.8	68.9	87.8	70.4	65.9	89.7	73.5
1963	66.0	93.9	70.2	88.2	74.8	70.2	93.9	74.8
1964	69.7	94.6	72.0	89.2	78.1	73.7	96.9	76.0
1965	75.0	98.2	74.1	92.4	81.2	76.4	101.3	75.4
1966	79.0	101.3	76.9	95.4	82.8	78.0	102.7	75.9
1967	79.0	100.0	79.6	95.1	83.1	79.0	99.3	79.6
1968	82.9	100.8	81.6	96.3	86.2	82.3	101.6	80.9
1969	85.0	102.5	83.7	98.0	86.7	82.9	101.5	81.7
1970	81.3	97.4	85.1	94.4	86.1	83.6	95.6	87.4
1971	83.9	94.8	86.2	92.7	90.4	88.5	97.3	90.9
1972	89.9	98.5	87.7	95.9	93.8	91.3	102.6	89.0
1973	97.5	102.9	90.2	99.9	97.6	94.7	108.1	87.6
1974	92.9	101.7	93.0	99.6	93.3	91.4	99.9	91.5
1975	87.2	92.8	94.9	93.2	93.5	94.0	91.9	102.3
1976	94.2	96.0	97.1	96.2	97.9	98.1	97.0	101.1
1977	99.9	100.1	100.0	100.0	99.9	99.8	99.9	99.9
1978	104.9	105.4	102.6	104.6	100.3	99.5	102.2	97.4
1979	107.5	108.0	107.4	107.7	99.7	99.5	100.0	99.5
1980	102.9	104.1	110.1	105.4	97.6	98.8	93.5	105.7
1981	106.3	103.5	113.3	105.6	100.7	102.7	93.8	109.5
1982	99.5	96.3	114.3	100.3	99.2	103.3	87.0	118.7
1983	105.5	97.9	115.0	101.6	103.9	107.8	91.8	117.5

TABLE IV. BUSINESS ECONOMY AND MAJOR SECTORS

3. Service Producing Sector

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	34.4	63.7	37.4	53.9	63.8	54.0	92.0	58.7
1949	34.5	63.3	38.1	53.9	64.0	54.5	90.4	60.3
1950	36.8	63.5	39.4	54.4	67.7	58.0	93.6	62.0
1951	37.9	64.8	40.3	55.6	68.2	58.5	94.1	62.2
1952	39.3	65.3	41.1	56.2	69.8	60.1	95.5	62.9
1953	40.4	66.4	42.1	57.2	70.6	60.9	95.9	63.4
1954	40.6	66.5	43.1	57.6	70.5	61.1	94.2	64.9
1955	43.4	68.5	44.6	59.4	73.1	63.4	97.3	65.1
1956	44.9	70.3	45.9	61.0	73.5	63.8	97.7	65.3
1957	45.7	70.6	47.3	61.7	74.1	64.7	96.6	67.0
1958	46.4	69.6	48.5	61.4	75.6	66.7	95.9	69.6
1959	49.3	71.7	50.0	63.3	77.9	68.7	98.6	69.7
1960	50.3	72.9	51.6	64.7	77.8	69.0	97.5	70.7
1961	51.8	72.9	53.2	65.2	79.4	71.1	97.3	73.0
1962	54.3	73.8	55.2	66.5	81.5	73.6	98.3	74.8
1963	55.6	74.5	57.3	67.8	81.9	74.6	97.0	76.8
1964	59.1	76.4	59.6	69.8	84.6	77.3	99.0	78.1
1965	62.6	78.3	62.4	72.1	86.9	80.0	100.5	79.6
1966	66.2	79.6	65.3	74.0	89.5	83.2	101.3	82.1
1967	68.9	80.5	68.0	75.6	91.2	85.6	101.4	84.4
1968	72.5	82.5	71.1	78.0	92.9	87.9	101.9	86.2
1969	74.8	85.4	74.6	81.1	92.2	87.6	100.3	87.3
1970	76.3	86.5	77.6	83.0	91.9	88.2	98.3	89.7
1971	78.5	87.5	80.9	84.9	92.5	89.7	97.1	92.4
1972	83.4	89.5	84.4	87.5	95.3	93.1	98.7	94.3
1973	87.7	92.6	88.6	91.0	96.4	94.7	99.0	95.6
1974	87.8	94.3	91.7	93.2	94.2	93.2	95.7	97.3
1975	88.8	93.8	93.8	93.7	94.8	94.7	94.7	100.0
1976	93.5	96.2	96.6	96.3	97.1	97.2	96.7	100.4
1977	100.1	100.1	100.0	100.0	100.1	99.9	100.1	99.9
1978	105.9	104.7	103.8	104.3	101.5	101.1	102.0	99.2
1979	108.1	109.1	107.4	108.4	99.8	99.1	100.6	98.5
1980	109.0	110.4	110.6	110.4	98.8	98.7	98.6	100.2
1981	112.3	112.2	114.0	112.7	99.6	100.1	98.5	101.6
1982	111.8	112.3	116.9	113.8	98.2	99.6	95.6	104.2
1983	115.1	113.7	120.3	116.0	99.2	101.2	95.7	105.8

TABLE IV. BUSINESS ECONOMY AND MAJOR SECTORS

4. Nonfinancial Corporate Business

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	28.9	58.9	32.6	51.4	56.2	49.0	88.6	55.3
1949	27.6	55.4	33.3	49.1	56.3	49.9	83.1	60.0
1950	31.1	58.1	34.5	51.4	60.5	53.5	89.9	59.5
1951	34.0	61.8	36.3	54.5	62.3	55.0	93.6	58.7
1952	34.6	62.6	37.5	55.4	62.4	55.2	92.3	59.9
1953	36.7	64.4	38.7	57.0	64.3	57.0	94.8	60.1
1954	35.6	60.8	39.6	54.8	64.9	58.5	89.9	65.1
1955	39.6	63.8	41.2	57.4	69.1	62.2	96.2	64.6
1956	40.7	65.2	42.9	58.9	69.1	62.4	94.9	65.7
1957	41.2	64.5	44.2	58.8	70.1	63.9	93.2	68.6
1958	39.3	61.6	44.9	57.0	68.9	63.7	87.5	72.8
1959	43.7	65.4	46.1	60.0	72.7	66.7	94.7	70.5
1960	45.0	66.3	47.4	61.0	73.8	68.0	95.0	71.6
1961	46.1	65.6	48.5	60.9	75.8	70.3	95.0	74.0
1962	50.2	68.2	51.3	63.5	79.1	73.6	98.0	75.1
1963	53.6	69.8	53.7	65.4	82.0	76.7	99.7	76.9
1964	57.2	72.1	56.7	67.8	84.4	79.4	101.0	78.6
1965	62.2	75.9	60.5	71.7	86.8	81.9	102.8	79.7
1966	66.7	80.2	66.3	76.4	87.3	83.2	100.6	82.7
1967	68.2	81.2	70.7	78.4	87.1	84.1	96.5	87.1
1968	72.7	83.7	74.5	81.3	89.5	86.9	97.7	88.9
1969	75.9	87.2	78.4	84.8	89.4	87.1	96.8	89.9
1970	75.3	86.2	81.1	84.9	88.8	87.4	92.9	94.0
1971	78.8	86.1	83.3	85.4	92.3	91.5	94.5	96.8
1972	85.2	90.5	86.7	89.5	95.1	94.1	98.2	95.8
1973	92.0	95.4	90.3	94.1	97.8	96.4	101.9	94.6
1974	89.0	95.9	92.5	95.0	93.6	92.8	96.2	96.4
1975	87.2	91.4	92.7	91.7	95.1	95.5	94.1	101.4
1976	93.7	95.3	95.7	95.4	98.1	98.2	97.9	100.4
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	106.3	105.4	104.5	105.2	101.1	100.9	101.8	99.1
1979	110.1	109.3	105.8	108.4	101.6	100.7	104.1	96.8
1980	108.0	108.2	106.7	107.8	100.2	99.8	101.2	98.6
1981	111.5	109.0	110.1	109.3	102.0	102.3	101.3	101.0
1982	107.8	104.8	110.6	106.4	101.3	102.8	97.4	105.5
1983	112.5	105.9	112.7	107.7	104.4	106.2	99.8	106.4

TABLE IV. BUSINESS ECONOMY AND MAJOR SECTORS

5. Farming

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	75.4	309.2	72.0	205.0	36.8	24.4	104.6	23.3
1949	74.1	306.5	72.5	203.7	36.4	24.2	102.2	23.6
1950	78.2	283.6	74.5	191.7	40.8	27.6	104.9	26.3
1951	74.3	268.7	75.8	183.9	40.4	27.6	98.1	28.2
1952	76.2	255.5	77.1	177.1	43.0	29.8	98.8	30.2
1953	80.1	236.5	77.6	166.6	48.1	33.9	103.3	32.8
1954	82.0	229.7	78.3	163.1	50.3	35.7	104.8	34.1
1955	84.5	233.6	80.6	166.2	50.8	36.2	104.9	34.5
1956	83.3	222.4	81.1	160.2	52.0	37.5	102.8	36.4
1957	81.1	204.6	82.2	150.6	53.8	39.6	98.7	40.2
1958	84.7	189.7	82.8	142.6	59.4	44.6	102.2	43.7
1959	80.1	189.9	84.5	143.4	55.9	42.2	94.9	44.5
1960	84.7	183.2	85.4	139.9	60.5	46.2	99.2	46.6
1961	84.2	173.4	85.4	134.2	62.8	48.6	98.6	49.3
1962	83.8	168.1	86.0	131.3	63.8	49.9	97.4	51.2
1963	86.5	161.0	86.7	127.5	67.9	53.7	99.7	53.9
1964	84.4	152.3	87.6	122.7	68.8	55.5	96.4	57.5
1965	87.5	148.3	88.3	120.7	72.5	59.0	99.1	59.5
1966	82.6	134.4	88.7	112.8	73.3	61.5	93.1	66.0
1967	86.8	129.6	89.5	110.3	78.7	67.0	97.1	69.0
1968	85.1	126.8	90.1	108.9	78.2	67.2	94.5	71.1
1969	87.0	120.6	90.6	105.5	82.4	72.1	96.0	75.1
1970	91.7	113.7	91.5	102.5	89.4	80.6	100.2	80.4
1971	97.0	110.3	92.5	101.4	95.7	87.9	104.8	83.9
1972	94.8	111.4	92.9	102.1	92.8	85.1	102.0	83.4
1973	94.2	109.4	94.8	102.0	92.3	86.1	99.3	86.7
1974	94.9	109.3	95.8	102.5	92.6	86.8	99.0	87.7
1975	100.9	105.6	98.2	101.9	99.0	95.5	102.7	93.0
1976	96.3	100.9	98.9	99.9	96.4	95.4	97.4	98.0
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	98.6	101.8	98.8	100.0	98.6	96.9	99.8	97.1
1979	103.9	99.7	103.7	101.4	102.4	104.2	100.2	104.0
1980	106.4	97.2	104.1	100.4	106.0	109.5	102.2	107.1
1981	124.8	96.8	105.7	101.0	123.6	128.9	118.1	109.1
1982	120.1	93.9	105.6	99.5	120.7	127.9	113.7	112.5
1983	113.3	98.7	105.2	101.7	111.4	114.8	107.6	106.7

TABLE IV. BUSINESS ECONOMY AND MAJOR SECTORS

6. Manufacturing Industry

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	35.8	79.4	39.2	68.5	52.2	45.1	91.4	49.3
1949	33.9	72.4	39.8	63.7	53.3	46.9	85.3	55.0
1950	38.6	78.2	41.3	68.3	56.6	49.4	93.5	52.9
1951	43.0	84.2	44.6	73.6	58.5	51.1	96.5	53.0
1952	44.5	85.4	46.5	75.0	59.3	52.0	95.7	54.4
1953	47.5	89.8	48.1	78.6	60.4	52.9	98.8	53.6
1954	44.1	82.1	48.9	73.3	60.2	53.7	90.3	59.5
1955	48.9	86.6	50.9	77.1	63.3	56.4	96.1	58.7
1956	49.2	87.9	53.3	78.8	62.5	56.0	92.4	60.6
1957	49.5	86.5	54.8	78.2	63.2	57.1	90.3	63.3
1958	45.2	79.4	55.1	73.3	61.7	56.9	82.0	69.4
1959	50.5	84.7	56.2	77.3	65.3	59.6	89.8	66.4
1960	50.7	84.4	57.1	77.4	65.5	60.0	88.7	67.7
1961	50.7	82.3	58.1	76.1	66.6	61.6	87.3	70.6
1962	55.1	85.6	59.5	78.9	69.7	64.3	92.5	69.5
1963	59.6	86.5	60.9	79.9	74.6	68.9	98.0	70.3
1964	63.9	88.4	62.7	81.8	78.1	72.3	101.9	70.9
1965	69.8	93.6	65.5	86.4	80.7	74.5	106.5	70.0
1966	75.1	99.8	69.9	92.1	81.6	75.3	107.6	70.0
1967	75.0	99.6	73.7	93.0	80.6	75.3	101.7	74.1
1968	79.1	101.4	76.6	95.1	83.1	78.0	103.3	75.5
1969	81.7	103.1	79.6	97.1	84.1	79.3	102.7	77.2
1970	77.0	97.3	81.4	93.3	82.5	79.1	94.6	83.7
1971	78.7	93.7	82.5	90.9	86.6	83.9	95.4	88.0
1972	86.2	97.8	84.6	94.5	91.3	88.2	101.9	86.5
1973	95.9	103.2	87.7	99.3	96.6	93.0	109.4	85.0
1974	91.9	101.2	92.1	98.9	92.9	90.8	99.8	90.9
1975	85.4	91.4	93.6	92.0	92.8	93.4	91.2	102.4
1976	93.6	95.9	96.5	96.1	97.4	97.5	96.9	100.6
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	105.3	104.5	104.2	104.4	100.9	100.8	101.1	99.8
1979	108.2	106.6	109.4	107.3	100.9	101.5	98.9	102.6
1980	103.5	101.8	113.3	104.7	98.9	101.7	91.3	111.3
1981	106.5	101.2	117.3	105.2	101.2	105.3	90.8	115.9
1982	99.1	93.0	118.4	99.4	99.7	106.5	83.7	127.3
1983	106.8	94.4	119.8	100.8	105.9	113.1	89.1	126.9

TABLE IV. BUSINESS ECONOMY AND MAJOR SECTORS

7. Nonfarm Nonmanufacturing Industry

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	36.1	64.7	37.2	55.3	65.3	55.8	97.0	57.6
1949	36.0	64.0	38.0	55.1	65.4	56.3	94.7	59.4
1950	38.6	64.4	39.3	55.8	69.3	60.0	98.4	61.0
1951	40.2	66.3	40.3	57.4	70.1	60.6	99.8	60.8
1952	41.6	66.9	41.2	58.0	71.7	62.2	101.0	61.6
1953	42.8	67.6	42.2	58.8	72.8	63.3	101.4	62.4
1954	43.1	67.4	43.3	59.0	73.1	64.0	99.6	64.2
1955	46.1	69.6	44.8	61.0	75.5	66.2	102.8	64.4
1956	47.9	71.8	46.2	62.9	76.1	66.7	103.5	64.4
1957	48.6	71.8	47.7	63.4	76.7	67.7	101.8	66.5
1958	49.3	70.4	48.9	62.8	78.5	70.0	100.7	69.5
1959	52.4	72.8	50.6	64.9	80.7	72.0	103.6	69.5
1960	53.4	73.6	52.2	66.0	80.9	72.6	102.3	71.0
1961	54.8	73.4	53.9	66.5	82.5	74.7	101.7	73.5
1962	57.3	74.3	56.0	67.8	84.6	77.2	102.5	75.3
1963	58.8	75.1	58.0	69.1	85.2	78.3	101.4	77.3
1964	62.3	77.0	60.5	71.1	87.7	81.0	103.1	78.6
1965	65.9	78.9	63.2	73.3	89.9	83.5	104.4	80.0
1966	69.3	80.3	66.1	75.2	92.1	86.3	104.7	82.4
1967	71.6	80.7	68.7	76.4	93.7	88.7	104.1	85.2
1968	75.4	82.3	71.8	78.6	95.9	91.5	104.9	87.2
1969	77.4	85.7	75.2	81.9	94.4	90.3	102.9	87.8
1970	78.5	86.5	78.1	83.5	94.0	90.7	100.4	90.3
1971	81.0	87.6	81.2	85.3	95.0	92.5	99.7	92.8
1972	85.6	89.8	84.6	88.0	97.3	95.3	101.2	94.2
1973	89.6	93.1	88.6	91.5	98.0	96.3	101.2	95.2
1974	88.8	94.6	91.6	93.5	94.9	93.9	96.9	96.9
1975	88.9	93.2	93.7	93.4	95.2	95.4	94.9	100.6
1976	93.7	95.7	96.5	96.0	97.6	97.9	97.1	100.8
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	105.8	105.3	103.9	104.8	101.0	100.5	101.9	98.7
1979	107.9	110.0	107.5	109.1	98.8	98.0	100.3	97.7
1980	107.9	111.0	110.7	110.9	97.3	97.2	97.5	99.7
1981	110.7	112.5	114.1	113.1	97.9	98.4	97.0	101.5
1982	109.7	111.8	117.0	113.7	96.5	98.1	93.8	104.6
1983	113.1	113.2	120.2	115.7	97.8	100.0	94.1	106.2

TABLE V. MAJOR NONFARM NONMANUFACTURING INDUSTRIES

1. Mining

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	57.9	112.5	38.8	80.5	71.8	51.4	149.2	34.5
1949	50.7	97.2	39.5	72.2	70.2	52.1	128.2	40.7
1950	56.8	98.3	41.5	73.6	77.1	57.7	136.8	42.2
1951	62.1	102.5	43.1	76.7	80.9	60.5	143.9	42.1
1952	61.1	99.6	45.0	75.8	80.6	61.4	135.8	45.2
1953	62.5	96.8	46.6	74.9	83.5	64.6	134.2	48.1
1954	60.4	88.5	48.9	71.1	85.0	68.3	123.7	55.2
1955	67.4	93.3	51.7	75.0	89.8	72.3	130.4	55.4
1956	71.1	97.0	54.2	78.2	90.8	73.2	131.1	55.9
1957	70.9	96.2	56.9	78.9	89.9	73.7	124.7	59.1
1958	65.2	85.0	59.0	73.4	88.8	76.6	110.4	69.4
1959	68.1	86.5	61.6	75.3	90.4	78.7	110.6	71.2
1960	69.1	84.1	63.8	75.0	92.2	82.2	108.4	75.8
1961	69.4	80.0	66.3	73.8	94.1	86.8	104.7	82.9
1962	71.4	78.2	68.5	73.8	96.8	91.3	104.2	87.7
1963	74.5	76.3	70.3	73.5	101.4	97.7	106.0	92.1
1964	77.5	77.1	73.3	75.3	103.0	100.5	105.7	95.1
1965	80.5	76.9	75.5	76.1	105.9	104.8	106.7	98.2
1966	84.7	77.2	77.9	77.3	109.6	109.8	108.7	101.0
1967	86.9	74.6	79.7	76.6	113.4	116.5	109.1	106.8
1968	90.2	73.3	81.7	76.8	117.5	123.1	110.5	111.4
1969	93.4	75.3	83.7	78.8	118.5	124.0	111.5	111.2
1970	97.0	74.8	84.9	79.0	122.7	129.6	114.3	113.4
1971	94.4	72.8	85.4	78.0	121.0	129.7	110.6	117.3
1972	97.4	74.9	85.9	79.5	122.5	130.0	113.4	114.7
1973	98.3	77.4	87.0	81.4	120.8	127.1	113.0	112.4
1974	98.6	83.2	88.3	85.3	115.5	118.5	111.6	106.2
1975	96.7	88.8	91.2	89.8	107.6	108.8	106.0	102.6
1976	97.9	94.5	94.9	94.7	103.4	103.6	103.1	100.5
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	103.0	104.7	104.9	104.8	98.3	98.4	98.1	100.2
1979	106.8	116.6	109.1	113.5	94.1	91.6	97.8	93.6
1980	110.6	126.1	113.4	120.8	91.5	87.7	97.5	90.0
1981	115.4	140.9	119.0	131.8	87.5	81.9	96.9	84.5
1982	110.7	138.8	122.8	132.2	83.8	79.8	90.2	88.5
1983	108.0	123.1	123.9	123.4	87.5	87.7	87.2	100.6

TABLE V. MAJOR NONFARM NONMANUFACTURING INDUSTRIES

2. Contract Construction

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	48.3	64.5	25.5	61.8	78.1	74.8	189.0	39.6
1949	48.2	63.9	25.6	61.2	78.7	75.5	188.2	40.1
1950	53.2	66.7	28.4	64.1	83.1	79.8	187.6	42.5
1951	59.1	73.1	31.3	70.3	84.2	80.9	189.2	42.8
1952	61.6	74.7	33.0	71.9	85.7	82.4	186.5	44.2
1953	63.4	73.0	32.5	70.3	90.2	86.8	195.0	44.5
1954	65.4	71.7	33.9	69.2	94.5	91.2	193.2	47.2
1955	69.4	75.7	35.8	73.0	95.0	91.7	193.9	47.3
1956	74.4	80.8	38.7	78.0	95.4	92.0	192.3	47.9
1957	74.5	78.6	42.2	76.2	97.8	94.8	176.4	53.7
1958	76.7	75.5	44.1	73.5	104.3	101.5	173.7	58.4
1959	82.8	80.0	48.0	77.9	106.2	103.5	172.6	59.9
1960	83.9	78.2	50.6	76.4	109.8	107.3	165.8	64.7
1961	84.9	77.2	53.8	75.7	112.2	110.0	157.9	69.6
1962	88.1	78.8	57.2	77.3	113.9	111.8	153.9	72.7
1963	90.8	80.9	61.4	79.6	114.1	112.2	147.9	75.9
1964	94.9	83.2	65.5	82.0	115.8	114.1	144.9	78.7
1965	99.0	85.7	69.7	84.6	117.0	115.5	142.0	81.3
1966	99.3	88.0	73.0	86.9	114.2	112.8	136.1	82.9
1967	97.2	84.5	77.0	83.9	115.8	115.0	126.2	91.1
1968	103.4	83.6	79.7	83.2	124.3	123.7	129.8	95.3
1969	101.5	91.0	82.9	90.4	112.3	111.5	122.5	91.0
1970	97.2	89.4	84.2	89.0	109.2	108.7	115.5	94.1
1971	105.4	92.2	87.5	91.9	114.7	114.3	120.4	94.9
1972	108.0	96.3	92.5	96.0	112.5	112.1	116.7	96.1
1973	109.4	101.6	95.6	101.1	108.2	107.7	114.4	94.1
1974	97.0	101.0	96.6	100.6	96.4	96.0	100.4	95.6
1975	87.9	89.8	96.7	90.3	97.3	97.9	90.9	107.7
1976	96.0	92.4	96.4	92.8	103.5	103.9	99.6	104.3
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	106.9	111.6	105.2	111.2	96.2	95.8	101.6	94.3
1979	106.0	118.2	107.0	117.4	90.3	89.7	99.0	90.5
1980	95.0	114.7	105.4	114.0	83.4	82.9	90.2	91.9
1981	91.9	110.6	105.0	110.2	83.4	83.1	87.5	95.0
1982	86.7	103.6	103.9	103.7	83.6	83.7	83.5	100.3
1983	93.2	107.2	101.7	106.9	87.2	86.9	91.6	94.9

TABLE V. MAJOR NONFARM NONMANUFACTURING INDUSTRIES

3. Total Transportation

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	59.5	115.7	64.2	105.5	56.5	51.5	92.7	55.5
1949	52.1	105.7	65.6	97.7	53.3	49.3	79.5	62.0
1950	54.5	104.7	66.6	97.1	56.1	52.1	81.8	63.7
1951	59.4	109.1	68.1	101.0	58.8	54.4	87.1	62.4
1952	57.4	106.6	69.3	99.2	57.9	53.9	82.8	65.1
1953	57.0	106.1	70.3	99.0	57.6	53.7	81.0	66.3
1954	53.3	99.0	70.7	93.4	57.1	53.9	75.4	71.5
1955	58.1	101.5	71.2	95.5	60.8	57.2	81.6	70.1
1956	60.2	102.4	72.0	96.3	62.5	58.8	83.6	70.4
1957	59.8	99.9	73.3	94.6	63.2	59.8	81.6	73.4
1958	55.4	91.6	73.3	88.0	63.0	60.5	75.6	80.0
1959	58.4	94.3	74.2	90.3	64.7	62.0	78.7	78.7
1960	59.2	93.3	75.2	89.7	66.0	63.4	78.7	80.6
1961	58.8	90.7	75.6	87.7	67.1	64.8	77.9	83.3
1962	61.2	91.1	76.1	88.1	69.4	67.1	80.4	83.6
1963	64.4	91.0	76.4	88.1	73.2	70.8	84.3	84.0
1964	66.5	92.3	77.6	89.4	74.3	72.0	85.6	84.1
1965	72.3	95.1	79.3	92.0	78.7	76.0	91.2	83.4
1966	78.4	97.2	81.6	94.1	83.3	80.7	96.1	83.9
1967	78.1	90.7	83.6	89.2	87.6	86.2	93.4	92.2
1968	83.7	97.4	86.4	95.2	87.9	85.9	96.9	88.7
1969	84.7	99.2	88.5	97.0	87.3	85.4	95.7	89.2
1970	83.3	97.8	90.1	96.2	86.5	85.1	92.4	92.1
1971	82.8	95.6	91.0	94.6	87.5	86.6	91.0	95.2
1972	89.0	97.7	90.7	96.3	92.5	91.1	98.1	92.9
1973	94.4	100.9	93.4	99.3	95.1	93.6	101.1	92.6
1974	96.7	99.8	95.5	98.9	97.7	96.9	101.3	95.6
1975	90.2	94.2	97.2	94.8	95.1	95.8	92.8	103.2
1976	94.7	96.3	98.7	96.8	97.8	98.3	95.9	102.4
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	107.4	105.1	101.5	104.3	103.0	102.2	105.8	96.6
1979	110.0	108.5	103.0	107.4	102.4	101.4	106.7	95.0
1980	101.9	104.7	103.8	104.6	97.5	97.3	98.2	99.1
1981	97.5	104.0	104.0	104.1	93.7	93.7	93.7	100.0
1982	91.4	97.6	104.1	98.9	92.4	93.7	87.9	106.6
1983	92.2	96.6	103.7	98.0	94.1	95.5	88.9	107.4

TABLE V. MAJOR NONFARM NONMANUFACTURING INDUSTRIES

3a. Railroad Transportation

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	112.8	295.8	96.4	252.2	44.7	38.1	117.0	32.6
1949	93.7	252.2	98.0	218.5	42.9	37.1	95.5	38.9
1950	101.9	239.6	98.9	208.9	48.8	42.5	103.0	41.3
1951	114.5	250.8	100.3	218.0	52.5	45.7	114.3	40.0
1952	109.7	239.9	101.5	209.7	52.3	45.7	108.1	42.3
1953	106.8	236.0	102.2	206.9	51.6	45.3	104.4	43.3
1954	96.4	209.3	102.3	186.1	51.8	46.0	94.2	48.9
1955	106.7	213.2	102.2	189.1	56.4	50.0	104.3	48.0
1956	109.2	209.5	102.7	186.4	58.6	52.1	106.3	49.0
1957	102.8	197.4	103.5	177.1	58.1	52.1	99.4	52.4
1958	91.4	168.2	102.8	154.2	59.3	54.4	88.9	61.1
1959	95.6	163.6	102.4	150.5	63.5	58.5	93.4	62.6
1960	94.5	155.9	103.0	144.6	65.4	60.6	91.8	66.1
1961	93.7	145.9	102.6	136.6	68.6	64.2	91.3	70.3
1962	97.2	143.3	101.8	134.3	72.3	67.8	95.4	71.1
1963	102.0	139.7	101.4	131.4	77.7	73.1	100.7	72.6
1964	106.5	138.8	102.1	130.8	81.4	76.8	104.3	73.6
1965	115.1	135.3	102.7	128.2	89.8	85.1	112.0	75.9
1966	123.0	133.0	104.1	126.7	97.1	92.5	118.2	78.2
1967	116.5	126.0	104.5	121.2	96.1	92.5	111.5	83.0
1968	114.4	122.4	104.3	118.4	96.6	93.4	109.7	85.2
1969	117.6	119.8	104.7	116.3	101.1	98.2	112.3	87.4
1970	112.3	116.9	104.4	114.1	98.5	96.1	107.6	89.3
1971	99.8	109.1	103.6	107.9	92.6	91.5	96.4	94.9
1972	100.8	106.4	102.7	105.6	95.5	94.7	98.1	96.6
1973	105.0	107.4	102.1	106.2	98.9	97.8	102.8	95.1
1974	107.8	108.3	101.6	106.8	101.0	99.6	106.1	93.9
1975	94.7	100.1	101.2	100.4	94.4	94.6	93.6	101.0
1976	99.3	99.2	100.5	99.5	99.8	100.1	98.8	101.4
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	103.8	99.4	99.6	99.5	104.3	104.4	104.2	100.2
1979	103.4	103.0	99.2	102.2	101.2	100.4	104.2	96.3
1980	101.0	96.5	98.6	97.0	104.1	104.6	102.4	102.2
1981	97.0	89.8	98.0	91.6	105.9	108.1	99.0	109.1
1982	88.9	76.3	97.4	81.1	109.7	116.5	91.3	127.6
1983	89.7	67.2	96.5	73.8	121.6	133.6	93.0	143.6

TABLE V. MAJOR NONFARM NONMANUFACTURING INDUSTRIES

3b. Nonrail Transportation

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	46.2	72.9	33.5	65.6	70.5	63.4	138.1	45.9
1949	41.7	70.9	34.5	64.1	65.1	58.8	120.8	48.7
1950	42.7	72.7	35.9	65.8	64.9	58.7	119.0	49.3
1951	45.6	75.5	37.4	68.3	66.7	60.4	121.9	49.5
1952	44.4	74.9	38.6	68.1	65.1	59.2	114.8	51.6
1953	44.5	75.2	39.8	68.5	64.9	59.2	111.8	52.9
1954	42.5	72.7	40.5	66.6	63.8	58.5	104.9	55.7
1955	45.9	75.0	41.6	68.7	66.9	61.2	110.5	55.4
1956	48.0	76.9	42.6	70.4	68.1	62.4	112.4	55.5
1957	49.0	76.7	44.4	70.5	69.4	63.9	110.4	57.9
1958	46.4	73.5	45.2	68.0	68.2	63.2	102.8	61.5
1959	49.1	77.9	47.2	72.0	68.3	63.1	104.0	60.7
1960	50.4	78.4	48.6	72.7	69.3	64.2	103.6	62.0
1961	50.1	77.6	49.7	72.3	69.4	64.6	100.9	64.0
1962	52.2	78.7	51.6	73.5	71.0	66.3	101.1	65.5
1963	55.0	79.4	52.5	74.2	74.2	69.3	104.8	66.1
1964	56.4	81.3	54.2	76.1	74.2	69.4	104.1	66.7
1965	61.7	85.6	56.9	80.1	77.0	72.0	108.3	66.5
1966	67.3	88.7	60.1	83.2	80.9	75.8	112.0	67.7
1967	68.5	82.3	63.6	78.6	87.2	83.3	107.7	77.3
1968	76.0	91.5	69.3	87.1	87.3	83.1	109.7	75.8
1969	76.5	94.4	73.1	90.1	84.9	81.1	104.8	77.4
1970	76.0	93.3	76.5	90.0	84.5	81.5	99.4	82.0
1971	78.5	92.4	78.9	89.7	87.6	85.0	99.5	85.4
1972	86.1	95.6	79.2	92.4	93.2	90.0	108.7	82.8
1973	91.8	99.3	85.0	96.5	95.2	92.4	107.9	85.6
1974	93.9	97.8	89.6	96.2	97.6	96.0	104.8	91.6
1975	89.1	92.8	93.5	92.9	95.9	96.0	95.3	100.7
1976	93.5	95.7	96.9	95.9	97.5	97.7	96.5	101.3
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	108.3	106.2	103.2	105.6	102.6	102.0	104.9	97.2
1979	111.6	109.8	106.7	109.1	102.3	101.7	104.6	97.2
1980	102.2	106.7	108.7	107.1	95.4	95.7	94.0	101.8
1981	97.7	107.4	109.8	107.9	90.5	90.9	88.9	102.2
1982	92.1	102.6	110.5	104.2	88.4	89.7	83.3	107.6
1983	92.8	103.5	110.6	104.9	88.5	89.7	83.9	106.8

TABLE V. MAJOR NONFARM NONMANUFACTURING INDUSTRIES

4. Communications

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	13.8	74.8	16.6	51.6	26.7	18.4	82.8	22.2
1949	14.4	72.2	17.4	50.1	28.8	20.0	82.7	24.2
1950	15.1	69.4	18.1	48.5	31.2	21.8	83.8	26.0
1951	16.7	70.9	18.8	49.6	33.7	23.6	88.9	26.5
1952	17.7	72.4	20.0	50.8	34.9	24.5	88.9	27.6
1953	19.4	74.9	21.0	52.7	36.8	25.9	92.5	28.0
1954	19.8	73.9	22.1	52.2	38.0	26.8	89.8	29.9
1955	21.8	73.8	23.3	52.5	41.5	29.5	93.4	31.6
1956	23.1	76.0	25.1	54.3	42.6	30.4	92.0	33.0
1957	24.8	75.4	27.4	54.4	45.5	32.8	90.3	36.4
1958	25.6	70.9	29.2	51.9	49.3	36.1	87.9	41.1
1959	27.6	70.3	30.9	51.9	53.1	39.2	89.2	44.0
1960	29.2	71.1	33.1	53.3	54.7	41.1	88.0	46.6
1961	30.5	69.8	35.3	53.6	56.9	43.7	86.6	50.5
1962	32.8	70.3	37.7	55.0	59.6	46.6	86.9	53.7
1963	35.2	70.3	40.4	56.2	62.5	50.0	87.0	57.5
1964	37.5	72.7	43.4	58.8	63.7	51.6	86.4	59.7
1965	40.7	76.1	46.8	62.2	65.4	53.5	86.9	61.6
1966	44.5	79.9	50.5	65.9	67.4	55.7	88.0	63.3
1967	47.8	81.1	54.4	68.3	69.9	58.9	87.8	67.0
1968	51.7	82.9	58.2	71.0	72.8	62.4	88.8	70.2
1969	57.3	89.5	62.4	76.5	74.9	64.0	91.8	69.8
1970	62.7	94.1	67.4	81.3	77.1	66.6	93.0	71.6
1971	66.1	91.7	72.4	82.5	80.2	72.1	91.3	79.0
1972	71.7	96.2	77.5	87.2	82.2	74.5	92.5	80.6
1973	76.9	99.0	82.8	91.2	84.4	77.7	92.9	83.6
1974	79.9	100.4	88.1	94.5	84.6	79.6	90.7	87.7
1975	87.0	97.4	91.7	94.7	91.9	89.3	94.9	94.1
1976	93.4	96.8	95.2	96.0	97.3	96.5	98.1	98.4
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	109.8	105.3	106.0	105.6	104.0	104.3	103.6	100.7
1979	117.7	111.2	112.4	111.7	105.4	105.9	104.7	101.2
1980	126.6	115.5	118.9	117.1	108.1	109.6	106.5	102.9
1981	135.2	118.2	125.3	121.6	111.2	114.4	107.9	106.0
1982	137.3	119.2	130.4	124.6	110.2	115.2	105.3	109.4
1983	137.5	111.6	134.1	122.4	112.3	123.2	102.5	120.1

TABLE V. MAJOR NONFARM NONMANUFACTURING INDUSTRIES

5. Public Utilities

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	18.3	81.4	25.2	49.5	36.9	22.4	72.4	31.0
1949	20.2	81.8	26.8	50.4	40.1	24.7	75.5	32.8
1950	21.7	82.0	28.4	51.3	42.3	26.5	76.4	34.6
1951	25.1	81.9	30.0	51.9	48.4	30.7	83.8	36.6
1952	27.0	81.5	31.7	52.5	51.4	33.1	85.2	38.8
1953	28.9	82.0	33.5	53.6	54.0	35.3	86.3	40.9
1954	31.8	81.7	35.2	54.3	58.6	38.9	90.3	43.0
1955	33.5	82.2	36.7	55.2	60.8	40.8	91.4	44.7
1956	36.0	81.8	38.2	55.7	64.6	44.0	94.1	46.8
1957	38.2	82.6	40.1	57.0	67.0	46.2	95.1	48.6
1958	39.7	82.4	41.9	57.7	68.8	48.1	94.7	50.8
1959	43.3	82.9	43.3	58.5	74.1	52.3	100.1	52.2
1960	46.5	83.3	44.7	59.5	78.1	55.8	104.1	53.7
1961	49.0	82.9	46.0	60.2	81.3	59.1	106.4	55.5
1962	51.2	82.6	47.3	60.9	84.1	62.0	108.2	57.2
1963	53.8	83.8	48.6	62.2	86.6	64.2	110.7	58.0
1964	57.4	83.8	50.2	63.1	90.9	68.5	114.3	59.9
1965	60.2	86.0	52.0	65.1	92.5	70.0	115.7	60.5
1966	64.1	86.8	54.5	66.9	95.8	73.8	117.7	62.7
1967	67.4	88.4	57.4	69.3	97.2	76.2	117.3	64.9
1968	73.7	89.6	60.9	71.9	102.6	82.3	121.1	68.0
1969	78.5	92.5	64.7	75.4	104.1	84.8	121.3	70.0
1970	80.9	95.3	68.9	79.0	102.4	84.9	117.3	72.3
1971	86.6	94.6	73.6	81.6	106.0	91.5	117.7	77.7
1972	89.3	96.7	78.7	85.5	104.4	92.4	113.5	81.4
1973	93.6	99.3	83.9	89.8	104.2	94.2	111.5	84.5
1974	90.1	100.1	88.8	93.1	96.8	90.0	101.5	88.7
1975	96.2	97.7	92.2	94.3	102.1	98.5	104.4	94.3
1976	96.7	98.0	95.7	96.6	100.1	98.6	101.0	97.6
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	103.7	105.5	104.5	104.9	98.9	98.4	99.2	99.1
1979	107.5	109.4	109.2	109.2	98.4	98.3	98.5	99.8
1980	107.5	112.3	113.3	112.9	95.2	95.7	94.9	100.9
1981	113.6	115.7	117.3	116.7	97.4	98.2	96.8	101.4
1982	108.1	117.7	121.4	120.0	90.1	91.8	89.0	103.2
1983	110.2	118.2	125.4	122.6	89.8	93.2	87.9	106.1

TABLE V. MAJOR NONFARM NONMANUFACTURING INDUSTRIES

6. Trade

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	33.7	71.3	23.8	63.2	53.4	47.3	141.8	33.4
1949	34.5	71.7	24.6	63.6	54.3	48.2	140.7	34.3
1950	37.9	72.0	27.5	64.6	58.7	52.6	137.8	38.2
1951	38.2	73.4	28.7	65.9	58.0	52.1	132.9	39.2
1952	39.4	73.3	29.4	66.0	59.7	53.7	134.2	40.0
1953	40.7	74.1	30.4	66.8	60.8	54.9	133.9	41.0
1954	40.9	74.4	31.5	67.4	60.8	55.0	129.8	42.4
1955	44.6	76.3	34.6	69.6	64.2	58.5	129.2	45.3
1956	46.0	78.0	36.4	71.4	64.4	58.9	126.4	46.6
1957	46.7	77.9	37.7	71.6	65.2	59.9	123.8	48.4
1958	46.7	77.3	38.6	71.3	65.5	60.4	120.9	49.9
1959	49.9	80.0	40.8	74.0	67.5	62.4	122.4	51.0
1960	50.8	81.0	42.7	75.2	67.7	62.7	119.1	52.7
1961	51.4	80.5	43.8	74.9	68.6	63.8	117.2	54.4
1962	54.7	81.1	46.2	75.7	72.2	67.4	118.4	56.9
1963	56.7	80.6	48.5	75.6	75.0	70.4	117.0	60.1
1964	60.2	83.1	51.1	78.1	77.1	72.5	117.9	61.5
1965	64.2	85.3	54.9	80.5	79.7	75.2	116.9	64.3
1966	67.7	85.5	59.6	81.5	83.0	79.1	113.5	69.7
1967	69.3	84.7	62.4	81.2	85.4	81.8	111.1	73.7
1968	73.6	84.1	66.7	81.3	90.4	87.4	110.3	79.3
1969	75.1	91.9	71.3	88.6	84.8	81.7	105.3	77.6
1970	76.4	88.4	74.3	86.1	88.7	86.4	102.8	84.1
1971	80.3	89.8	78.5	88.0	91.2	89.4	102.3	87.3
1972	86.3	92.2	82.6	90.7	95.2	93.7	104.5	89.6
1973	91.4	94.5	87.6	93.4	97.9	96.7	104.3	92.7
1974	89.6	94.4	91.0	93.8	95.5	94.9	98.5	96.4
1975	90.8	94.3	91.0	93.8	96.8	96.2	99.7	96.5
1976	95.3	96.8	94.9	96.5	98.7	98.4	100.4	98.0
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	105.9	103.6	105.5	103.9	101.9	102.2	100.4	101.8
1979	108.5	105.7	108.6	106.2	102.2	102.6	99.9	102.7
1980	106.5	104.9	110.7	105.8	100.6	101.5	96.2	105.5
1981	109.0	105.3	114.2	106.7	102.1	103.5	95.4	108.5
1982	107.4	103.8	116.3	105.8	101.5	103.4	92.3	112.0
1983	114.2	104.7	120.2	107.2	106.6	109.1	95.0	114.8

TABLE V. MAJOR NONFARM NONMANUFACTURING INDUSTRIES

7. Finance and Insurance

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	31.2	43.8	13.7	36.6	85.3	71.3	228.7	31.2
1949	32.0	44.4	13.6	37.0	86.5	72.1	235.4	30.6
1950	33.9	45.5	13.6	37.9	89.5	74.5	248.9	29.9
1951	36.4	46.8	13.7	38.9	93.6	77.8	266.0	29.2
1952	38.0	48.6	14.1	40.3	94.2	78.2	268.4	29.1
1953	39.8	50.2	15.0	41.8	95.1	79.2	265.4	29.8
1954	41.3	52.1	14.9	43.2	95.6	79.3	277.9	28.5
1955	44.3	54.3	15.6	45.0	98.4	81.6	284.1	28.7
1956	47.2	55.3	16.3	46.0	102.8	85.4	289.9	29.5
1957	49.1	56.2	16.9	46.8	104.9	87.4	291.2	30.0
1958	49.2	57.8	17.9	48.2	102.0	85.2	275.7	30.9
1959	50.6	59.8	19.3	50.1	101.0	84.7	262.9	32.2
1960	53.4	61.8	20.6	52.0	102.5	86.3	258.8	33.3
1961	55.1	63.1	22.3	53.5	103.0	87.3	246.7	35.4
1962	57.1	65.1	24.4	55.6	102.8	87.8	234.2	37.5
1963	58.6	66.3	27.0	57.3	102.3	88.3	217.0	40.7
1964	60.8	68.6	32.1	60.4	100.7	88.7	189.5	46.8
1965	62.8	70.3	34.8	62.6	100.4	89.3	180.5	49.4
1966	65.3	71.1	37.0	63.8	102.3	91.8	176.5	52.0
1967	68.4	73.3	40.2	66.3	103.2	93.4	170.3	54.8
1968	73.1	76.8	42.5	69.7	104.9	95.1	172.0	55.3
1969	78.3	81.0	48.6	74.6	104.9	96.6	161.2	59.9
1970	80.3	82.7	52.9	76.8	104.5	97.1	151.7	64.0
1971	81.8	84.6	57.1	79.1	103.4	96.7	143.2	67.6
1972	84.8	87.1	64.2	82.6	102.7	97.3	131.9	73.8
1973	89.1	90.6	71.8	86.9	102.6	98.4	124.1	79.3
1974	93.0	93.0	78.6	90.2	103.1	99.9	118.3	84.5
1975	95.0	94.6	84.5	92.6	102.6	100.4	112.5	89.2
1976	96.1	96.4	91.5	95.4	100.7	99.7	105.0	94.9
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	105.1	107.0	110.4	107.6	97.6	98.2	95.2	103.2
1979	109.4	111.8	122.5	113.9	96.1	97.9	89.3	109.6
1980	112.8	114.3	135.7	118.5	95.2	98.7	83.2	118.7
1981	116.3	118.4	151.7	125.0	93.1	98.2	76.7	128.1
1982	118.1	120.6	168.4	130.0	90.9	98.0	70.1	139.7
1983	119.9	122.6	187.2	135.4	88.6	97.8	64.1	152.7

TABLE V. MAJOR NONFARM NONMANUFACTURING INDUSTRIES

8. Real Estate

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	39.7	52.8	61.2	60.4	65.8	75.2	64.9	115.9
1949	41.8	53.6	61.5	60.7	68.8	78.0	67.9	114.9
1950	44.1	54.3	62.1	61.3	71.9	81.3	71.0	114.4
1951	43.7	55.0	62.4	61.6	70.9	79.5	70.1	113.5
1952	45.6	55.9	62.5	61.8	73.8	81.6	73.0	111.7
1953	45.8	57.7	62.7	62.2	73.6	79.4	73.0	108.7
1954	46.7	59.6	63.4	63.1	74.0	78.3	73.6	106.4
1955	48.1	61.7	64.4	64.1	75.1	78.1	74.8	104.4
1956	49.0	62.5	64.9	64.7	75.7	78.4	75.4	103.9
1957	50.5	63.7	65.7	65.5	77.1	79.3	76.9	103.1
1958	52.8	65.4	66.2	66.1	79.7	80.6	79.7	101.2
1959	56.0	66.7	67.1	67.1	83.5	83.9	83.4	100.6
1960	56.4	67.0	68.2	68.1	82.8	84.2	82.7	101.8
1961	58.6	66.2	69.5	69.3	84.6	88.5	84.3	105.0
1962	62.1	67.5	71.1	70.9	87.6	92.0	87.3	105.3
1963	62.8	73.3	73.0	73.0	85.9	85.6	85.9	99.6
1964	65.3	74.5	74.5	74.5	87.7	87.7	87.7	100.0
1965	69.0	74.5	76.7	76.5	90.2	92.6	90.0	102.9
1966	70.8	72.1	78.6	78.2	90.5	98.2	90.0	109.0
1967	72.1	73.0	80.1	79.6	90.5	98.7	90.0	109.7
1968	73.9	72.8	81.6	81.1	91.2	101.5	90.5	112.1
1969	75.7	77.7	83.5	83.2	91.0	97.5	90.6	107.6
1970	76.0	79.1	85.6	85.2	89.2	96.1	88.8	108.2
1971	80.7	84.1	88.3	88.0	91.7	95.9	91.4	105.0
1972	83.7	88.2	91.2	91.0	91.9	94.8	91.7	103.4
1973	85.3	91.4	94.6	94.3	90.4	93.4	90.2	103.5
1974	87.6	92.5	96.1	95.8	91.4	94.7	91.1	103.9
1975	86.4	91.3	97.1	96.7	89.3	94.5	89.0	106.3
1976	90.8	93.6	98.3	98.0	92.7	97.0	92.4	105.0
1977	100.1	100.0	100.0	100.0	100.1	100.1	100.1	100.0
1978	104.6	110.9	101.9	102.6	101.9	94.3	102.6	91.9
1979	111.1	119.6	103.8	105.0	105.8	92.8	107.0	86.8
1980	110.0	121.4	105.3	106.4	103.3	90.6	104.5	86.7
1981	112.6	119.9	106.5	107.5	104.7	93.9	105.7	88.8
1982	112.7	120.0	107.3	108.3	104.1	93.9	105.0	89.4
1983	114.4	129.3	109.4	110.9	103.2	88.5	104.5	84.6

TABLE V. MAJOR NONFARM NONMANUFACTURING INDUSTRIES

9. Services

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	34.8	43.9	27.6	38.7	90.0	79.1	125.9	62.8
1949	34.8	44.7	28.4	39.4	88.1	77.7	122.2	63.6
1950	36.3	44.9	29.5	39.8	91.2	81.0	123.0	65.8
1951	36.7	45.7	30.7	40.7	90.2	80.4	119.6	67.2
1952	39.1	47.3	31.7	42.2	92.8	82.7	123.3	67.1
1953	40.5	48.9	33.1	43.6	92.8	82.8	122.5	67.6
1954	40.6	49.9	34.3	44.8	90.8	81.3	118.4	68.7
1955	42.2	52.2	36.0	46.8	90.2	80.8	117.3	68.9
1956	43.1	54.8	37.7	49.1	87.8	78.7	114.3	68.9
1957	43.3	56.0	39.4	50.5	85.7	77.2	109.7	70.4
1958	46.4	55.7	41.2	50.7	91.5	83.3	112.6	74.0
1959	48.9	57.4	43.2	52.5	93.3	85.3	113.3	75.3
1960	49.3	59.3	45.3	54.4	90.5	83.1	108.7	76.5
1961	52.1	60.2	47.8	55.9	93.3	86.6	109.1	79.3
1962	53.3	61.5	50.5	57.7	92.4	86.6	105.4	82.2
1963	52.5	63.8	53.3	60.2	87.3	82.2	98.5	83.5
1964	57.6	64.8	56.4	61.9	93.1	88.9	102.1	87.1
1965	60.7	66.3	59.7	64.0	94.8	91.5	101.7	90.0
1966	64.5	69.0	63.1	66.9	96.4	93.6	102.2	91.5
1967	70.0	73.7	66.3	71.1	98.5	95.0	105.6	90.0
1968	71.6	78.0	70.3	75.3	95.0	91.7	101.8	90.1
1969	73.2	73.5	74.3	73.7	99.2	99.6	98.5	101.1
1970	75.0	81.2	77.6	80.1	93.7	92.4	96.6	95.6
1971	73.7	82.1	80.7	81.6	90.3	89.8	91.4	98.2
1972	78.0	83.1	84.1	83.4	93.5	93.8	92.8	101.1
1973	81.8	87.3	87.9	87.5	93.5	93.7	93.1	100.6
1974	81.8	91.9	91.0	91.7	89.3	89.0	89.9	99.0
1975	83.0	92.0	93.8	92.5	89.7	90.3	88.5	102.0
1976	89.6	95.0	96.7	95.5	93.8	94.3	92.6	101.9
1977	99.9	100.0	100.0	100.0	99.9	99.9	99.9	100.0
1978	105.4	104.7	103.8	104.5	100.9	100.7	101.6	99.1
1979	102.4	111.8	107.4	110.5	92.7	91.6	95.4	96.1
1980	108.7	116.7	110.9	115.0	94.5	93.1	98.0	95.0
1981	113.7	120.4	114.4	118.6	95.9	94.4	99.4	95.1
1982	116.1	123.5	117.6	121.8	95.3	94.0	98.7	95.2
1983	117.2	126.6	120.4	124.8	94.0	92.6	97.4	95.1

TABLE VI. MANUFACTURING INDUSTRIES

1. Food

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	46.4	113.3	71.7	102.5	45.2	40.9	64.7	63.3
1949	45.2	110.8	72.6	100.9	44.8	40.8	62.3	65.5
1950	48.3	110.6	74.1	101.3	47.7	43.7	65.2	67.0
1951	48.9	112.9	77.1	103.9	47.1	43.3	63.5	68.2
1952	51.6	112.5	77.2	103.6	49.8	45.9	66.9	68.7
1953	54.7	112.2	77.1	103.4	52.9	48.7	71.0	68.7
1954	54.1	110.7	76.8	102.3	52.9	48.8	70.4	69.4
1955	55.3	111.1	78.2	102.9	53.8	49.8	70.8	70.4
1956	57.8	111.6	79.4	103.7	55.8	51.8	72.8	71.1
1957	59.9	108.5	79.3	101.5	59.0	55.2	75.5	73.1
1958	60.3	106.8	78.8	100.1	60.2	56.5	76.5	73.8
1959	61.1	107.6	79.6	101.0	60.5	56.7	76.7	74.0
1960	62.3	107.5	78.8	100.7	61.9	58.0	79.1	73.3
1961	62.9	106.7	79.2	100.2	62.7	58.9	79.4	74.2
1962	65.5	105.8	80.3	99.8	65.6	61.9	81.6	75.9
1963	70.1	105.3	80.8	99.6	70.4	66.6	86.8	76.7
1964	71.0	105.1	81.3	99.6	71.3	67.6	87.4	77.3
1965	74.2	106.3	80.8	100.4	73.9	69.7	91.7	76.0
1966	78.3	107.3	82.5	101.5	77.1	73.0	94.8	76.9
1967	77.1	107.6	84.9	102.4	75.2	71.6	90.8	78.8
1968	78.1	107.1	86.2	102.4	76.3	72.9	90.6	80.5
1969	81.6	107.6	86.8	103.0	79.2	75.8	93.9	80.7
1970	82.7	106.5	88.1	102.4	80.8	77.7	94.0	82.7
1971	86.0	104.3	89.5	101.0	85.2	82.5	96.2	85.8
1972	91.2	103.3	90.2	100.4	90.9	88.3	101.1	87.4
1973	101.2	101.5	90.5	99.0	102.2	99.8	111.8	89.2
1974	95.0	101.1	92.3	99.1	95.8	94.0	102.9	91.3
1975	95.6	98.1	95.1	97.4	98.1	97.4	100.5	96.9
1976	99.6	100.2	98.2	99.8	99.8	99.4	101.4	97.9
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	99.9	100.1	102.1	100.6	99.3	99.8	97.9	101.9
1979	105.0	101.3	105.1	102.2	102.7	103.6	99.9	103.8
1980	108.3	99.4	107.1	101.2	106.9	108.9	101.1	107.7
1981	112.7	97.3	108.5	99.9	112.8	115.8	103.8	111.5
1982	115.3	94.4	108.3	97.6	118.1	122.1	106.5	114.6
1983	117.4	93.3	106.9	96.4	121.7	125.8	109.8	114.6

TABLE VI. MANUFACTURING INDUSTRIES

2. Tobacco

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	54.4	163.6	40.4	94.7	57.4	33.3	134.6	24.7
1949	58.3	152.9	40.3	89.7	65.1	38.2	144.9	26.3
1950	55.3	146.7	42.8	87.9	62.9	37.7	129.3	29.1
1951	66.8	149.7	49.4	92.3	72.3	44.6	135.2	33.0
1952	64.6	151.3	51.8	94.2	68.6	42.7	124.7	34.3
1953	59.6	147.5	54.0	93.5	63.8	40.4	110.3	36.6
1954	55.9	145.6	53.3	92.2	60.6	38.4	104.9	36.6
1955	59.4	147.9	56.1	94.6	62.9	40.2	106.1	37.9
1956	63.0	144.3	60.2	94.8	66.5	43.7	104.6	41.7
1957	65.7	139.5	61.3	93.1	70.6	47.1	107.2	43.9
1958	70.0	138.8	61.4	92.8	75.5	50.5	114.1	44.2
1959	74.3	137.9	64.1	93.6	79.4	53.9	115.8	46.5
1960	76.7	134.5	66.0	93.3	82.2	57.0	116.3	49.1
1961	79.9	132.3	67.6	93.4	85.5	60.4	118.2	51.1
1962	82.7	130.2	69.6	93.7	88.2	63.5	118.7	53.5
1963	83.4	127.4	71.2	93.5	89.2	65.5	117.2	55.9
1964	80.2	130.3	72.6	95.6	84.0	61.6	110.5	55.7
1965	79.4	122.5	75.2	93.9	84.5	64.8	105.6	61.3
1966	80.7	123.6	77.9	96.0	84.0	65.2	103.5	63.0
1967	83.4	125.0	79.9	97.7	85.4	66.7	104.4	63.9
1968	84.6	120.3	82.3	97.2	87.0	70.4	102.8	68.4
1969	85.9	116.1	83.4	96.2	89.3	74.0	103.0	71.8
1970	91.0	117.6	82.6	96.3	94.6	77.4	110.2	70.3
1971	92.6	109.5	84.3	94.2	98.3	84.5	109.8	76.9
1972	95.0	105.6	87.6	94.6	100.4	89.9	108.5	82.9
1973	99.5	112.0	91.6	99.6	99.9	88.8	108.7	81.7
1974	99.4	110.7	95.9	101.7	97.7	89.8	103.6	86.6
1975	102.2	108.4	95.2	100.4	101.8	94.3	107.3	87.9
1976	104.1	107.5	97.2	101.2	102.8	96.8	107.0	90.5
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	101.2	100.6	102.7	101.9	99.3	100.6	98.6	102.1
1979	103.1	99.5	102.9	101.6	101.5	103.6	100.2	103.4
1980	97.8	98.3	105.2	102.6	95.4	99.5	92.9	107.1
1981	95.6	101.9	114.0	109.4	87.4	93.8	83.8	111.9
1982	89.0	95.7	116.1	108.2	82.3	93.0	76.7	121.2
1983	88.9	90.2	121.0	109.0	81.5	98.5	73.4	134.2

TABLE VI. MANUFACTURING INDUSTRIES

3. Textiles

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	38.8	141.6	35.0	111.5	34.8	27.4	110.8	24.7
1949	35.5	121.9	39.9	99.1	35.8	29.1	89.0	32.7
1950	37.2	134.6	45.8	109.9	33.9	27.7	81.4	34.0
1951	39.1	129.8	52.6	108.7	35.9	30.1	74.3	40.5
1952	38.4	122.9	56.7	105.1	36.5	31.2	67.7	46.1
1953	37.7	122.2	59.7	105.6	35.7	30.8	63.1	48.8
1954	35.7	108.4	61.3	96.3	37.0	32.9	58.2	56.5
1955	39.7	113.8	64.6	101.2	39.2	34.9	61.4	56.8
1956	40.4	110.8	68.0	100.2	40.3	36.5	59.4	61.4
1957	39.4	103.5	70.1	95.7	41.2	38.1	56.3	67.7
1958	38.8	96.5	70.9	91.0	42.7	40.2	54.8	73.5
1959	42.5	103.3	73.4	96.6	44.0	41.2	57.9	71.1
1960	41.0	99.1	73.5	93.3	43.9	41.4	55.8	74.2
1961	41.7	96.6	73.3	91.3	45.7	43.2	56.8	75.9
1962	44.3	98.9	73.8	93.2	47.5	44.8	60.0	74.7
1963	56.1	97.0	74.1	91.8	61.2	57.8	75.7	76.4
1964	59.7	98.7	75.1	93.3	64.0	60.5	79.6	76.0
1965	65.5	104.5	77.2	98.3	66.7	62.7	84.8	73.9
1966	71.1	109.1	81.2	102.8	69.2	65.2	87.6	74.4
1967	69.1	106.7	83.8	101.4	68.2	64.8	82.5	78.5
1968	72.7	111.7	85.7	105.8	68.7	65.0	84.7	76.7
1969	74.4	111.1	88.0	105.8	70.4	67.0	84.6	79.2
1970	78.7	105.9	88.9	102.0	77.2	74.3	88.5	84.0
1971	81.9	105.7	90.5	102.2	80.2	77.5	90.6	85.6
1972	87.9	111.0	93.4	106.9	82.2	79.2	94.1	84.2
1973	91.4	112.3	95.9	108.5	84.3	81.4	95.3	85.4
1974	80.3	103.8	98.4	102.5	78.4	77.4	81.6	94.9
1975	76.5	93.2	97.8	94.2	81.2	82.1	78.2	105.0
1976	87.9	100.2	98.7	99.9	88.0	87.7	89.0	98.5
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	101.2	99.3	101.0	99.8	101.4	101.9	100.2	101.7
1979	102.9	97.1	101.3	98.1	104.8	105.9	101.6	104.3
1980	98.7	92.6	101.6	94.7	104.1	106.5	97.1	109.7
1981	98.1	88.6	103.1	92.0	106.7	110.7	95.1	116.4
1982	91.0	76.8	101.6	82.5	110.2	118.5	89.6	132.3
1983	103.8	81.5	101.7	86.2	120.4	127.3	102.1	124.8

TABLE VI. MANUFACTURING INDUSTRIES

4. Apparel

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	43.2	92.0	49.2	87.4	49.5	47.0	87.9	53.5
1949	43.1	89.9	46.6	85.2	50.6	47.9	92.4	51.8
1950	46.7	92.9	47.0	87.9	53.2	50.3	99.3	50.6
1951	49.4	92.1	51.1	87.7	56.4	53.7	96.7	55.5
1952	50.5	94.4	51.1	89.8	56.3	53.5	99.0	54.1
1953	51.1	96.4	50.8	91.5	55.8	52.9	100.6	52.6
1954	48.0	89.8	48.5	85.3	56.2	53.4	98.9	54.0
1955	51.5	94.5	49.9	89.7	57.4	54.5	103.2	52.8
1956	52.6	94.1	51.6	89.6	58.8	55.9	102.0	54.8
1957	51.9	92.6	51.2	88.2	58.8	56.0	101.4	55.2
1958	50.9	88.4	49.3	84.3	60.5	57.6	103.3	55.8
1959	54.2	95.0	50.0	90.1	60.2	57.0	108.5	52.6
1960	56.1	93.8	51.9	89.2	62.9	59.8	108.2	55.3
1961	55.1	92.0	53.3	87.7	62.9	59.9	103.4	58.0
1962	58.3	97.4	55.4	92.7	62.9	59.9	105.2	56.9
1963	60.9	98.7	57.7	94.1	64.7	61.7	105.4	58.5
1964	63.0	99.4	59.4	94.9	66.3	63.4	106.0	59.7
1965	69.2	105.4	62.8	100.7	68.7	65.6	110.1	59.6
1966	74.8	109.0	67.0	104.3	71.7	68.6	111.6	61.5
1967	73.5	107.5	70.7	103.2	71.2	68.4	103.9	65.8
1968	76.7	107.9	75.3	104.1	73.7	71.1	101.8	69.8
1969	76.5	107.7	79.0	104.2	73.4	71.0	96.8	73.4
1970	71.2	102.8	80.6	100.1	71.1	69.2	88.3	78.4
1971	71.7	102.2	83.7	100.0	71.7	70.1	85.7	81.9
1972	87.8	106.5	87.5	104.2	84.3	82.5	100.4	82.2
1973	93.9	109.9	91.3	107.7	87.2	85.4	102.8	83.0
1974	93.5	102.5	95.2	101.6	92.0	91.2	98.2	92.9
1975	91.2	93.7	94.8	93.8	97.2	97.4	96.2	101.2
1976	96.5	100.6	97.4	100.2	96.3	95.9	99.0	96.8
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	105.9	101.2	102.1	101.3	104.5	104.6	103.7	100.9
1979	103.4	98.5	102.3	99.0	104.5	105.0	101.1	103.9
1980	106.0	95.7	103.3	96.6	109.7	110.8	102.6	108.0
1981	107.6	94.6	106.5	96.1	111.9	113.7	101.0	112.5
1982	98.2	86.2	104.2	88.4	111.0	113.9	94.2	120.9
1983	106.8	90.3	105.5	92.1	115.9	118.3	101.3	116.8

TABLE VI. MANUFACTURING INDUSTRIES

5. Lumber

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	45.1	119.4	85.7	111.8	40.4	37.8	52.6	71.8
1949	39.6	107.3	77.5	100.5	39.4	36.9	51.2	72.2
1950	42.3	115.8	71.9	105.5	40.1	36.5	58.8	62.1
1951	42.8	119.5	68.9	107.6	39.8	35.8	62.1	57.7
1952	42.4	114.4	64.0	102.6	41.3	37.0	66.1	56.0
1953	40.4	111.3	59.6	99.1	40.7	36.3	67.8	53.5
1954	39.0	102.8	56.2	91.8	42.5	37.9	69.4	54.6
1955	45.2	107.4	55.0	95.0	47.6	42.1	82.1	51.2
1956	45.3	104.4	53.3	92.3	49.0	43.4	84.9	51.1
1957	42.7	94.1	49.7	83.7	51.1	45.4	86.0	52.8
1958	39.7	89.8	47.1	79.7	49.8	44.2	84.3	52.4
1959	47.0	97.9	45.9	85.6	55.0	48.0	102.5	46.8
1960	43.9	92.5	48.0	81.8	53.7	47.5	91.6	51.9
1961	42.1	87.9	48.4	78.3	53.8	48.0	87.1	55.1
1962	42.3	89.1	49.7	79.5	53.1	47.4	85.1	55.7
1963	52.7	87.4	52.2	78.7	67.0	60.4	101.1	59.7
1964	64.0	90.5	54.0	81.6	78.4	70.7	118.5	59.6
1965	71.7	93.4	57.2	84.5	84.8	76.7	125.3	61.2
1966	70.0	94.5	60.9	86.1	81.3	74.1	114.9	64.5
1967	71.9	91.8	62.6	84.4	85.2	78.4	114.9	68.2
1968	74.8	91.3	64.5	84.4	88.6	81.9	116.0	70.6
1969	73.8	94.8	68.2	87.9	83.9	77.8	108.3	71.9
1970	75.7	89.2	70.4	84.4	89.8	84.9	107.5	78.9
1971	77.8	92.3	73.2	87.4	89.1	84.3	106.3	79.3
1972	88.6	101.1	77.8	95.1	93.2	87.7	113.9	77.0
1973	93.2	105.0	82.9	99.3	93.8	88.7	112.4	78.9
1974	90.9	96.6	90.1	91.9	95.7	94.0	100.8	93.3
1975	86.0	81.9	91.9	84.5	101.7	105.0	93.6	112.2
1976	94.9	94.1	95.5	94.4	100.5	100.9	99.4	101.5
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	101.4	104.5	105.8	104.9	96.6	97.0	95.8	101.3
1979	102.8	106.5	112.2	108.1	95.1	96.5	91.7	105.3
1980	98.1	95.5	115.9	100.9	97.3	102.7	84.7	121.3
1981	91.5	91.0	117.6	98.0	93.4	100.6	77.8	129.3
1982	84.5	81.2	115.2	90.1	93.8	104.1	73.3	141.9
1983	105.3	93.0	115.8	99.0	106.4	113.2	90.9	124.5

TABLE VI. MANUFACTURING INDUSTRIES

6. Furniture

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	42.8	77.1	53.7	73.4	58.4	55.6	79.8	69.7
1949	40.5	69.3	52.6	66.6	60.7	58.4	77.0	75.8
1950	49.1	81.8	54.0	77.5	63.4	60.1	91.0	66.0
1951	46.9	79.2	57.1	75.7	61.9	59.2	82.1	72.1
1952	51.9	79.7	57.7	76.2	68.1	65.2	90.0	72.4
1953	50.4	81.6	58.0	77.9	64.7	61.7	86.8	71.1
1954	48.3	74.3	56.8	71.5	67.6	65.1	85.0	76.5
1955	56.2	81.0	58.6	77.5	72.5	69.3	95.9	72.3
1956	56.5	82.1	60.4	78.6	71.8	68.8	93.9	73.6
1957	53.9	80.5	60.3	77.3	69.8	66.9	89.4	74.9
1958	49.1	76.7	59.4	73.9	66.5	64.0	82.7	77.4
1959	56.1	83.9	59.8	80.1	70.0	66.8	93.8	71.3
1960	55.3	82.4	60.3	78.9	70.1	67.1	91.8	73.1
1961	53.3	79.2	59.9	76.1	70.1	67.3	89.0	75.6
1962	57.6	83.8	60.5	80.1	71.9	68.8	95.1	72.3
1963	60.2	83.7	62.0	80.2	75.0	71.9	97.1	74.0
1964	65.3	87.6	63.1	83.8	78.0	74.6	103.5	72.0
1965	73.7	93.3	65.7	89.0	82.9	79.0	112.2	70.5
1966	78.0	98.7	70.6	94.3	82.8	79.0	110.6	71.5
1967	74.0	96.5	73.4	92.7	79.9	76.7	100.9	76.1
1968	79.5	99.2	75.2	95.3	83.4	80.1	105.6	75.9
1969	84.8	100.7	78.9	97.0	87.4	84.2	107.4	78.4
1970	72.8	93.2	82.3	91.4	79.7	78.1	88.5	88.3
1971	76.3	95.8	83.5	93.7	81.4	79.7	91.4	87.2
1972	92.2	104.9	87.4	101.9	90.5	88.0	105.5	83.4
1973	94.5	109.5	93.0	106.7	88.6	86.3	101.7	84.9
1974	91.3	103.8	98.0	102.8	88.8	88.0	93.1	94.5
1975	80.2	86.3	95.4	87.8	91.3	92.9	84.1	110.5
1976	92.2	92.8	97.5	93.6	98.5	99.4	94.6	105.1
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	109.2	105.8	104.4	105.6	103.4	103.2	104.6	98.6
1979	112.6	103.7	107.9	104.5	107.8	108.5	104.3	104.1
1980	107.4	96.5	110.5	98.9	108.6	111.3	97.1	114.6
1981	107.6	97.5	112.3	100.0	107.5	110.3	95.8	115.1
1982	97.6	89.0	109.9	92.5	105.5	109.7	88.8	123.5
1983	111.4	98.1	109.7	100.1	111.2	113.5	101.5	111.8

TABLE VI. MANUFACTURING INDUSTRIES

7. Paper

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	30.2	68.1	41.1	59.4	50.8	44.3	73.5	60.3
1949	30.1	64.1	42.1	57.2	52.6	47.0	71.6	65.7
1950	39.2	70.4	43.3	61.8	63.4	55.6	90.5	61.4
1951	41.9	73.8	45.3	64.7	64.7	56.7	92.4	61.4
1952	38.5	72.2	46.5	64.1	60.1	53.4	82.9	64.4
1953	40.8	76.5	47.5	67.3	60.7	53.4	85.9	62.1
1954	41.9	75.5	48.8	67.2	62.4	55.5	85.8	64.7
1955	46.2	79.3	50.8	70.3	65.6	58.2	90.9	64.1
1956	47.5	81.4	53.1	72.5	65.5	58.4	89.5	65.3
1957	44.0	81.1	54.8	73.0	60.3	54.2	80.3	67.6
1958	44.3	79.6	55.4	72.3	61.3	55.6	80.0	69.6
1959	50.1	84.1	56.5	75.6	66.3	59.6	88.6	67.2
1960	49.2	85.0	57.7	76.6	64.2	57.9	85.2	67.9
1961	51.8	85.7	58.9	77.5	66.9	60.5	87.9	68.8
1962	54.2	87.4	60.4	79.1	68.5	62.0	89.6	69.1
1963	55.2	88.4	61.3	80.1	68.9	62.4	90.0	69.3
1964	59.4	89.7	63.1	81.5	72.9	66.2	94.2	70.3
1965	62.4	92.4	65.9	84.3	74.0	67.6	94.7	71.4
1966	66.7	97.1	70.0	88.9	75.1	68.7	95.4	72.0
1967	63.9	98.0	73.6	90.7	70.4	65.2	86.8	75.1
1968	71.9	100.1	75.9	92.9	77.4	71.8	94.7	75.7
1969	78.9	102.9	78.3	95.5	82.6	76.7	100.8	76.1
1970	74.2	99.9	81.0	94.3	78.7	74.2	91.6	81.0
1971	78.6	97.0	81.9	92.5	85.0	81.0	95.9	84.5
1972	87.8	99.5	83.0	94.6	92.8	88.2	105.7	83.4
1973	98.2	101.9	84.9	96.9	101.4	96.3	115.6	83.3
1974	99.3	100.5	89.6	97.3	102.1	98.8	110.8	89.1
1975	82.9	90.3	92.2	90.9	91.3	91.8	90.0	102.1
1976	94.6	96.7	96.0	96.5	98.0	97.8	98.5	99.3
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	102.2	101.0	104.2	102.0	100.3	101.2	98.1	103.2
1979	105.2	101.3	110.2	104.0	101.2	103.8	95.5	108.7
1980	99.0	98.5	115.7	103.6	95.5	100.5	85.5	117.5
1981	100.7	98.1	119.2	104.4	96.5	102.7	84.5	121.5
1982	97.1	93.4	121.2	101.7	95.5	104.0	80.1	129.8
1983	107.9	94.0	123.2	102.8	105.0	114.8	87.6	131.0

TABLE VI. MANUFACTURING INDUSTRIES

8. Printing & Publishing

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	43.0	70.5	52.4	66.9	64.3	61.0	82.1	74.3
1949	45.1	69.5	52.2	66.0	68.4	65.0	86.4	75.2
1950	45.5	69.6	52.5	66.2	68.8	65.4	86.7	75.4
1951	46.5	71.0	53.4	67.4	68.9	65.5	87.0	75.2
1952	47.4	71.8	52.5	68.0	69.7	66.0	90.3	73.0
1953	49.4	74.1	51.4	69.6	70.9	66.7	96.1	69.4
1954	52.0	74.2	50.2	69.5	74.7	70.0	103.5	67.7
1955	55.3	76.3	50.2	71.3	77.6	72.4	110.0	65.8
1956	57.4	78.7	50.2	73.2	78.5	73.0	114.4	63.8
1957	58.2	79.0	49.7	73.3	79.4	73.7	117.2	62.9
1958	56.7	78.0	49.6	72.6	78.2	72.7	114.4	63.5
1959	61.0	80.0	49.9	74.2	82.1	76.2	122.1	62.5
1960	62.5	82.0	52.2	76.3	81.9	76.2	119.7	63.6
1961	63.3	81.9	54.2	76.6	82.7	77.2	116.9	66.1
1962	65.9	82.5	56.4	77.4	85.2	79.9	116.9	68.4
1963	71.4	83.3	58.5	78.4	91.1	85.8	122.0	70.3
1964	78.4	84.9	60.4	80.1	97.9	92.3	129.8	71.1
1965	80.6	88.3	63.0	83.3	96.8	91.3	128.0	71.4
1966	84.8	91.0	66.8	86.2	98.4	93.2	127.0	73.4
1967	86.2	93.0	70.8	88.5	97.4	92.7	121.7	76.2
1968	88.1	94.2	74.3	90.1	97.8	93.6	118.7	78.8
1969	93.0	96.6	77.5	92.6	100.4	96.3	119.9	80.3
1970	88.0	96.0	79.6	92.6	95.0	91.7	110.5	83.0
1971	88.6	93.5	83.1	91.3	97.0	94.8	106.5	89.0
1972	92.9	95.1	86.5	93.3	99.6	97.7	107.4	91.0
1973	100.1	97.2	89.9	95.7	104.6	103.0	111.4	92.4
1974	95.2	97.0	93.0	96.2	98.9	98.1	102.3	95.9
1975	94.8	94.3	94.3	94.3	100.5	100.5	100.5	100.1
1976	95.9	95.7	96.6	95.9	100.0	100.2	99.2	101.0
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	103.9	104.5	104.9	104.6	99.3	99.4	99.0	100.4
1979	106.4	108.7	110.4	109.1	97.5	97.9	96.3	101.6
1980	107.3	110.3	115.6	111.4	96.4	97.3	92.9	104.8
1981	110.1	111.4	120.9	113.4	97.1	98.9	91.1	108.5
1982	107.7	111.9	123.5	114.3	94.3	96.3	87.2	110.4
1983	116.2	115.1	126.9	117.6	98.8	101.0	91.5	110.3

TABLE VI. MANUFACTURING INDUSTRIES

9. Chemicals

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	17.3	61.4	29.3	47.5	36.4	28.1	58.9	47.7
1949	16.9	57.5	31.1	46.1	36.7	29.5	54.5	54.1
1950	20.3	59.8	33.1	48.4	41.9	33.9	61.2	55.4
1951	21.7	65.9	36.7	53.4	40.6	32.9	59.1	55.7
1952	21.9	67.3	39.6	55.5	39.4	32.5	55.2	58.8
1953	23.4	71.0	42.0	58.7	40.0	33.0	55.9	59.1
1954	24.7	69.5	43.9	58.7	42.0	35.5	56.2	63.2
1955	28.4	71.5	45.8	60.7	46.9	39.8	62.2	64.1
1956	29.8	73.7	48.1	63.0	47.3	40.4	61.9	65.3
1957	31.1	74.7	50.2	64.6	48.1	41.5	61.9	67.2
1958	30.5	73.1	51.9	64.4	47.4	41.7	58.8	70.9
1959	35.8	75.3	53.5	66.4	53.9	47.5	66.9	71.0
1960	35.5	77.1	54.0	67.6	52.6	46.1	65.8	70.0
1961	37.3	77.2	55.2	68.2	54.7	48.3	67.5	71.5
1962	39.9	79.1	56.4	69.9	57.1	50.4	70.7	71.3
1963	44.7	80.5	57.4	71.1	62.8	55.5	77.8	71.3
1964	48.4	81.9	59.1	72.6	66.6	59.1	81.9	72.1
1965	52.8	85.2	62.4	76.0	69.5	62.0	84.6	73.2
1966	56.2	90.0	66.1	80.4	70.0	62.5	85.1	73.4
1967	57.3	93.3	69.6	83.8	68.4	61.4	82.4	74.5
1968	65.2	96.7	72.2	86.9	75.0	67.4	90.4	74.6
1969	68.0	99.1	75.1	89.6	75.9	68.6	90.5	75.7
1970	68.8	97.9	77.6	89.9	76.5	70.2	88.6	79.2
1971	73.0	94.5	79.2	88.4	82.5	77.2	92.1	83.8
1972	79.9	94.4	80.1	88.7	90.0	84.6	99.8	84.8
1973	87.6	97.1	81.2	90.8	96.5	90.3	107.9	83.7
1974	85.4	98.5	86.0	93.6	91.3	86.7	99.3	87.3
1975	85.0	93.3	89.5	91.8	92.6	91.1	95.0	95.9
1976	95.1	96.9	94.3	95.9	99.2	98.2	100.9	97.4
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	103.3	102.5	104.1	103.1	100.1	100.7	99.1	101.6
1979	109.0	103.9	107.7	105.4	103.4	104.9	101.2	103.6
1980	104.5	103.1	110.9	106.2	98.4	101.3	94.2	107.6
1981	105.7	102.9	114.3	107.4	98.4	102.7	92.5	111.1
1982	100.2	98.9	115.3	105.4	95.1	101.4	86.9	116.6
1983	111.0	97.9	116.9	105.4	105.3	113.4	94.9	119.4

TABLE VI. MANUFACTURING INDUSTRIES

10. Petroleum

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	35.5	108.1	40.7	63.3	56.0	32.8	87.0	37.7
1949	38.0	104.4	42.7	63.8	59.6	36.4	89.0	40.9
1950	41.1	103.6	44.0	64.6	63.7	39.7	93.4	42.5
1951	42.8	109.7	45.8	67.7	63.2	39.0	93.5	41.7
1952	43.2	110.4	48.2	69.8	61.9	39.2	89.6	43.7
1953	45.1	114.3	51.5	73.5	61.3	39.5	87.5	45.1
1954	45.0	113.1	53.3	74.6	60.3	39.8	84.3	47.2
1955	49.8	112.7	55.1	75.8	65.7	44.2	90.4	48.9
1956	51.3	112.4	57.0	77.2	66.5	45.7	90.0	50.7
1957	49.8	110.6	59.0	78.3	63.6	45.0	84.4	53.4
1958	50.8	107.2	59.5	77.7	65.5	47.4	85.4	55.5
1959	57.4	103.4	59.3	76.3	75.2	55.5	96.8	57.3
1960	58.9	101.8	60.4	76.4	77.1	57.9	97.5	59.4
1961	61.1	97.2	61.8	75.4	81.1	62.9	98.9	63.6
1962	65.9	94.6	62.9	75.0	87.9	69.7	104.8	66.5
1963	68.0	90.8	63.5	73.9	92.1	74.9	107.2	69.9
1964	69.7	88.6	63.9	73.3	95.2	78.7	109.0	72.2
1965	73.3	89.3	65.2	74.3	98.7	82.2	112.5	73.1
1966	74.9	90.9	66.9	75.9	98.6	82.4	111.9	73.6
1967	74.7	91.2	69.9	77.9	96.0	82.0	106.8	76.7
1968	76.8	92.1	72.9	80.0	95.9	83.3	105.3	79.2
1969	73.6	89.9	75.5	80.7	91.2	81.8	97.5	84.0
1970	84.7	95.0	78.2	84.2	100.5	89.1	108.3	82.3
1971	89.6	97.0	81.1	86.8	103.2	92.3	110.5	83.5
1972	87.0	96.8	82.6	87.7	99.1	89.8	105.2	85.3
1973	101.3	95.1	83.7	87.8	115.4	106.6	121.1	88.0
1974	97.1	96.2	87.7	90.8	106.9	100.9	110.7	91.2
1975	86.9	93.1	92.0	92.4	94.0	93.3	94.4	98.8
1976	95.8	96.7	96.6	96.6	99.1	99.0	99.2	99.9
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	103.1	104.8	102.4	103.0	100.1	98.4	100.8	97.7
1979	100.9	106.4	107.3	106.7	94.5	94.8	94.0	100.9
1980	93.1	95.8	111.6	105.7	88.1	97.2	83.4	116.5
1981	88.3	106.7	117.3	113.3	77.9	82.7	75.2	109.9
1982	84.3	102.8	121.9	114.8	73.5	82.0	69.2	118.6
1983	88.0	99.4	125.6	115.9	75.9	88.6	70.1	126.3

TABLE VI. MANUFACTURING INDUSTRIES

11. Rubber

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	22.8	42.2	28.1	39.2	58.2	54.1	81.4	66.5
1949	20.9	37.7	28.8	35.8	58.4	55.5	72.6	76.4
1950	23.5	43.8	30.3	41.0	57.4	53.6	77.6	69.1
1951	30.3	46.7	33.0	43.8	69.1	64.9	91.7	70.7
1952	30.6	47.3	34.9	44.7	68.4	64.6	87.6	73.8
1953	30.3	50.0	36.6	47.2	64.2	60.5	82.9	73.1
1954	27.2	45.0	37.6	43.5	62.5	60.4	72.2	83.6
1955	30.1	52.0	39.4	49.3	61.1	58.0	76.5	75.8
1956	29.8	51.1	41.3	49.1	60.7	58.3	72.1	80.8
1957	29.6	51.9	42.4	49.9	59.3	57.0	69.8	81.7
1958	28.7	46.5	43.6	46.0	62.3	61.6	65.7	93.7
1959	35.7	52.7	45.5	51.2	69.8	67.9	78.6	86.4
1960	35.9	51.9	46.7	50.9	70.4	69.1	76.9	89.9
1961	37.7	51.9	47.0	50.9	74.1	72.8	80.3	90.6
1962	43.3	57.1	48.7	55.4	78.2	75.8	89.0	85.2
1963	47.2	58.4	49.4	56.6	83.5	80.9	95.6	84.6
1964	51.2	61.8	51.2	59.6	86.0	82.9	100.1	82.8
1965	55.7	67.8	54.6	65.0	85.6	82.1	102.0	80.5
1966	60.4	73.5	58.4	70.2	86.0	82.3	103.5	79.5
1967	60.7	73.5	61.4	71.0	85.6	82.6	99.0	83.5
1968	68.5	80.3	65.8	77.2	88.6	85.2	104.1	81.9
1969	75.7	84.4	70.5	81.5	92.9	89.7	107.3	83.6
1970	68.2	80.5	73.8	79.1	86.2	84.7	92.4	91.7
1971	74.3	80.8	75.8	79.7	93.1	91.9	98.0	93.8
1972	83.6	89.0	80.4	87.2	95.8	93.9	104.0	90.3
1973	95.4	97.7	86.3	95.3	100.2	97.7	110.6	88.4
1974	88.6	96.7	92.7	95.8	92.5	91.7	95.6	95.9
1975	80.7	83.6	93.2	85.6	94.3	96.6	86.6	111.5
1976	86.2	89.7	95.1	90.9	94.8	96.0	90.6	105.9
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	105.6	106.0	105.5	105.9	99.7	99.7	100.1	99.5
1979	106.4	109.0	110.6	109.4	97.3	97.6	96.2	101.4
1980	99.9	100.1	111.8	102.6	97.4	99.8	89.4	111.6
1981	110.2	102.4	114.3	104.9	105.1	107.6	96.4	111.6
1982	99.5	95.4	113.5	99.2	100.3	104.3	87.7	118.9
1983	113.2	102.6	114.1	105.0	107.9	110.4	99.3	111.2

TABLE VI. MANUFACTURING INDUSTRIES

12. Leather

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	103.4	161.5	67.1	148.8	69.5	64.0	154.1	41.6
1949	91.9	150.6	66.9	139.6	65.9	61.0	137.3	44.4
1950	91.3	156.0	68.5	144.4	63.2	58.6	133.4	43.9
1951	97.8	147.1	72.6	137.8	70.9	66.4	134.6	49.3
1952	86.2	154.7	72.6	144.1	59.8	55.7	118.7	46.9
1953	91.3	154.0	72.8	143.6	63.5	59.2	125.4	47.2
1954	83.9	145.0	71.1	135.7	61.8	57.8	118.0	49.0
1955	88.1	153.2	73.6	143.1	61.6	57.5	119.7	48.1
1956	88.7	151.0	75.8	141.6	62.6	58.7	117.0	50.2
1957	86.9	146.7	74.8	137.9	63.0	59.2	116.1	51.0
1958	82.1	139.2	72.9	131.2	62.5	59.0	112.6	52.4
1959	100.6	148.6	73.4	139.2	72.2	67.7	136.9	49.4
1960	90.6	141.2	74.6	132.8	68.2	64.1	121.4	52.8
1961	91.4	140.9	75.4	132.6	68.9	64.9	121.2	53.5
1962	99.0	142.0	76.6	133.8	74.0	69.7	129.2	54.0
1963	101.1	139.0	77.3	131.2	77.1	72.8	130.8	55.6
1964	103.3	137.6	77.9	130.0	79.5	75.1	132.7	56.6
1965	110.3	141.1	80.1	133.4	82.7	78.2	137.7	56.8
1966	114.8	147.4	83.7	139.3	82.4	77.8	137.2	56.7
1967	104.7	141.0	86.7	134.1	78.1	74.3	120.8	61.5
1968	108.6	143.2	90.9	136.5	79.6	75.8	119.5	63.5
1969	104.1	133.8	92.4	128.4	81.1	77.8	112.6	69.1
1970	94.6	125.6	92.2	121.2	78.0	75.3	102.6	73.4
1971	94.5	119.4	93.3	116.0	81.5	79.2	101.3	78.2
1972	96.6	119.3	95.1	116.1	83.2	81.0	101.5	79.8
1973	105.2	112.8	97.2	110.8	95.0	93.3	108.3	86.1
1974	97.9	105.1	99.2	104.3	93.8	93.1	98.7	94.4
1975	94.6	96.8	97.4	96.9	97.6	97.7	97.1	100.6
1976	107.3	103.1	98.7	102.5	104.6	104.0	108.7	95.7
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	101.2	102.1	101.9	102.1	99.1	99.1	99.3	99.8
1979	98.2	95.8	101.8	96.6	101.7	102.6	96.5	106.3
1980	93.4	89.3	102.3	91.0	102.6	104.6	91.3	114.6
1981	94.7	91.9	106.2	93.8	101.0	103.0	89.1	115.6
1982	92.6	84.1	104.7	86.8	106.7	110.1	88.4	124.5
1983	90.9	83.3	106.4	86.4	105.3	109.1	85.5	127.7

TABLE VI. MANUFACTURING INDUSTRIES

13. Stone, Clay, & Glass

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	47.8	81.7	39.4	69.8	68.4	58.5	121.4	48.2
1949	44.6	75.0	40.4	65.2	68.4	59.4	110.3	53.9
1950	53.4	81.9	42.2	70.7	75.5	65.2	126.6	51.5
1951	57.3	88.3	45.2	76.2	75.2	64.9	126.8	51.2
1952	55.0	84.3	46.7	73.6	74.7	65.3	117.8	55.4
1953	58.2	86.4	48.1	75.5	77.1	67.4	120.9	55.7
1954	56.7	81.8	49.2	72.5	78.2	69.3	115.2	60.2
1955	65.4	88.4	52.3	78.1	83.7	73.9	125.0	59.2
1956	64.3	90.3	56.5	80.6	79.9	71.3	113.9	62.6
1957	62.5	87.6	59.4	79.4	78.8	71.4	105.3	67.8
1958	61.0	82.2	60.5	75.8	80.5	74.2	100.7	73.6
1959	69.0	90.2	62.5	82.1	84.1	76.5	110.5	69.3
1960	67.5	89.2	64.0	81.9	82.3	75.6	105.5	71.7
1961	67.9	86.2	65.2	80.3	84.5	78.7	104.1	75.6
1962	71.3	87.9	66.4	81.9	87.1	81.1	107.3	75.6
1963	77.4	89.5	68.0	83.5	92.7	86.5	113.8	76.0
1964	82.6	92.6	69.5	86.1	96.0	89.3	118.9	75.1
1965	85.6	95.2	71.8	88.6	96.6	90.0	119.2	75.5
1966	86.1	97.5	75.4	91.4	94.2	88.3	114.2	77.3
1967	83.7	94.5	77.4	90.1	92.9	88.5	108.1	81.9
1968	87.3	96.1	78.7	91.6	95.4	90.9	110.9	82.0
1969	92.5	98.9	81.3	94.4	98.0	93.5	113.8	82.2
1970	88.9	95.6	83.3	92.5	96.2	93.0	106.7	87.1
1971	90.6	97.2	84.7	93.9	96.4	93.2	107.0	87.2
1972	99.4	103.0	87.2	98.9	100.5	96.5	114.0	84.6
1973	107.3	108.2	90.8	103.7	103.4	99.1	118.2	83.8
1974	100.6	105.7	94.6	102.8	97.9	95.3	106.4	89.5
1975	91.7	92.4	95.6	93.2	98.3	99.2	95.8	103.5
1976	100.6	95.8	97.6	96.3	104.5	105.0	103.0	101.9
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	109.2	105.0	104.2	104.8	104.2	104.0	104.8	99.2
1979	111.4	106.6	108.5	107.1	104.0	104.5	102.6	101.8
1980	101.4	98.4	112.4	102.0	99.4	103.1	90.2	114.3
1981	99.2	93.5	114.5	98.9	100.3	106.1	86.6	122.5
1982	91.2	83.4	114.0	91.3	99.9	109.3	80.0	136.7
1983	103.9	86.3	114.0	93.5	111.1	120.3	91.1	132.1

TABLE VI. MANUFACTURING INDUSTRIES

14. Primary Metals

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	81.4	101.6	39.9	83.9	97.1	80.1	204.0	39.3
1949	72.4	85.7	40.9	73.0	99.1	84.4	176.7	47.8
1950	85.6	99.7	42.6	83.3	102.8	85.9	201.1	42.7
1951	102.6	110.8	46.4	92.3	111.2	92.6	221.0	41.9
1952	91.5	102.1	49.2	87.1	105.1	89.6	186.0	48.2
1953	105.2	110.9	51.7	94.0	111.9	94.9	203.6	46.6
1954	82.2	92.8	52.7	81.6	100.7	88.6	155.9	56.8
1955	101.0	106.5	54.8	91.9	109.9	94.8	184.4	51.4
1956	99.8	108.5	57.9	94.3	105.8	91.9	172.4	53.3
1957	100.6	105.1	61.0	92.9	108.4	95.7	165.0	58.0
1958	76.4	86.9	62.4	80.9	94.8	87.8	122.5	71.7
1959	84.3	93.5	63.5	85.3	98.5	90.1	132.8	67.8
1960	82.8	94.5	65.5	86.8	95.4	87.7	126.4	69.3
1961	78.9	88.7	66.7	83.1	94.9	88.9	118.2	75.2
1962	83.9	91.7	67.3	85.4	98.2	91.5	124.6	73.4
1963	90.4	94.1	68.3	87.3	103.5	96.1	132.4	72.6
1964	102.2	101.1	70.1	92.9	110.1	101.1	145.9	69.3
1965	110.6	107.7	72.4	98.2	112.6	102.7	152.8	67.2
1966	118.0	111.3	76.3	102.0	115.7	106.0	154.6	68.6
1967	111.6	106.7	80.2	100.0	111.7	104.6	139.3	75.1
1968	111.1	107.6	82.8	101.4	109.5	103.2	134.2	76.9
1969	112.5	111.5	85.1	104.9	107.3	100.9	132.2	76.3
1970	103.1	104.4	87.6	100.2	102.9	98.7	117.6	83.9
1971	100.4	96.5	88.3	94.5	106.3	104.0	113.7	91.5
1972	107.1	99.7	89.4	97.1	110.3	107.4	119.7	89.7
1973	125.9	109.0	89.5	104.1	121.0	115.5	140.7	82.1
1974	127.4	109.9	92.6	105.6	120.7	115.9	137.5	84.3
1975	96.0	93.7	95.9	94.2	101.9	102.5	100.2	102.4
1976	100.0	96.5	98.3	96.9	103.2	103.7	101.8	101.8
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	109.1	104.3	101.7	103.7	105.2	104.6	107.3	97.4
1979	113.3	106.4	103.9	105.9	107.0	106.5	109.0	97.6
1980	101.2	93.9	105.0	96.7	104.7	107.9	96.5	111.8
1981	105.7	92.9	107.7	96.7	109.4	113.8	98.2	115.9
1982	71.4	73.1	106.8	81.6	87.5	97.7	66.9	146.1
1983	82.3	69.5	106.2	78.8	104.4	118.3	77.5	152.7

TABLE VI. MANUFACTURING INDUSTRIES

15. Fabricated Metals

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	38.5	63.9	26.4	58.2	66.1	60.2	146.0	41.2
1949	35.2	56.3	27.1	52.1	67.6	62.6	129.8	48.2
1950	42.0	65.0	29.9	59.9	70.1	64.6	140.3	46.0
1951	45.8	72.6	34.6	67.1	68.2	63.1	132.3	47.7
1952	48.9	73.2	36.9	68.1	71.7	66.8	132.3	50.5
1953	53.9	80.5	39.5	74.7	72.1	66.9	136.2	49.1
1954	49.4	71.8	40.7	67.8	72.9	68.8	121.5	56.6
1955	52.8	76.1	43.8	72.0	73.3	69.4	120.6	57.6
1956	53.7	76.6	46.9	73.1	73.5	70.1	114.6	61.2
1957	54.8	77.7	48.5	74.4	73.7	70.6	113.0	62.4
1958	49.8	70.3	49.1	68.4	72.9	70.9	101.5	69.9
1959	55.6	74.5	51.2	72.4	76.8	74.6	108.5	68.7
1960	55.6	74.7	52.3	72.7	76.5	74.4	106.3	70.0
1961	55.8	71.7	52.7	70.2	79.5	77.8	105.9	73.5
1962	60.8	75.9	54.0	74.0	82.2	80.2	112.7	71.1
1963	63.4	78.4	55.5	76.4	83.0	80.9	114.2	70.8
1964	67.5	80.8	58.8	79.0	85.4	83.5	114.7	72.8
1965	74.6	86.5	62.9	84.6	88.2	86.2	118.6	72.7
1966	81.7	94.1	67.0	91.8	89.0	86.8	121.9	71.2
1967	83.5	96.8	70.9	94.7	88.2	86.3	117.9	73.2
1968	88.3	100.8	74.9	98.8	89.3	87.6	117.9	74.3
1969	93.3	103.9	77.1	101.8	91.6	89.8	121.0	74.2
1970	85.2	95.1	78.0	94.5	90.1	89.6	109.2	82.0
1971	81.7	89.9	78.9	90.2	90.6	90.9	103.6	87.8
1972	89.9	95.4	81.0	95.3	94.3	94.2	110.9	84.9
1973	100.0	102.7	86.3	102.4	97.6	97.3	115.9	84.0
1974	90.4	100.1	92.7	101.3	89.2	90.3	97.4	92.7
1975	81.3	88.0	93.6	91.1	89.3	92.4	86.9	106.4
1976	92.0	92.6	96.6	95.5	96.4	99.4	95.3	104.3
1977	100.0	97.1	100.0	100.0	100.0	102.9	100.0	102.9
1978	104.4	102.4	105.0	103.0	101.4	101.9	99.4	102.5
1979	110.3	104.8	109.6	105.7	104.4	105.3	100.6	104.7
1980	103.8	97.5	112.5	100.1	103.8	106.6	92.3	115.5
1981	104.0	95.5	115.6	98.9	105.1	108.8	89.9	121.0
1982	93.7	84.2	114.3	89.3	104.9	111.3	82.0	135.7
1983	98.7	84.4	115.2	89.6	110.2	117.0	85.7	136.5

TABLE VI. MANUFACTURING INDUSTRIES

16. Machinery, except Electrical

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	37.6	63.6	28.6	55.7	67.5	59.1	131.3	45.0
1949	33.5	52.9	28.9	47.5	70.4	63.2	115.6	54.7
1950	35.4	56.9	30.2	50.8	69.6	62.2	117.1	53.1
1951	46.0	70.7	33.8	62.4	73.7	65.0	136.1	47.8
1952	50.5	72.6	35.8	64.4	78.5	69.5	140.8	49.4
1953	49.3	73.5	37.7	65.4	75.4	67.1	130.8	51.3
1954	44.2	64.6	38.4	58.7	75.2	68.3	115.0	59.4
1955	45.1	67.8	40.2	61.5	73.3	66.6	112.1	59.4
1956	49.9	73.9	42.5	66.8	74.7	67.5	117.5	57.5
1957	47.1	72.7	43.8	66.2	71.1	64.8	107.5	60.3
1958	39.8	60.9	43.7	57.0	69.8	65.3	91.1	71.8
1959	46.2	67.1	44.4	62.0	74.6	68.9	104.3	66.1
1960	46.2	67.7	44.9	62.6	73.9	68.2	103.0	66.3
1961	46.1	65.0	45.6	60.6	76.1	71.0	101.2	70.2
1962	51.6	69.1	47.9	64.4	80.2	74.7	107.9	69.2
1963	53.8	71.5	49.2	66.5	80.9	75.2	109.2	68.9
1964	60.4	76.1	52.1	70.7	85.5	79.4	115.9	68.6
1965	66.1	83.3	55.8	77.1	85.8	79.4	118.4	67.0
1966	73.7	93.0	60.8	85.7	86.0	79.3	121.2	65.4
1967	74.3	93.4	64.9	87.0	85.3	79.5	114.4	69.5
1968	74.3	91.7	67.6	86.4	86.1	81.0	110.0	73.7
1969	77.5	95.7	72.2	90.5	85.6	81.0	107.3	75.4
1970	77.3	91.0	75.4	87.6	88.3	84.9	102.5	82.8
1971	72.0	82.5	76.0	81.0	88.8	87.3	94.8	92.1
1972	81.5	88.6	78.7	86.4	94.3	91.9	103.5	88.8
1973	92.2	99.3	85.1	96.2	95.9	92.9	108.3	85.8
1974	94.2	103.3	93.1	101.0	93.3	91.2	101.2	90.1
1975	85.9	93.8	93.7	93.8	91.5	91.5	91.7	99.9
1976	92.8	94.7	95.7	94.9	97.8	98.0	97.0	101.1
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	107.9	108.4	106.9	108.0	99.9	99.5	100.9	98.6
1979	115.5	114.9	115.3	115.0	100.5	100.5	100.2	100.3
1980	116.7	114.0	121.6	115.7	100.9	102.3	95.9	106.7
1981	125.4	113.2	127.2	116.3	107.8	110.7	98.6	112.3
1982	112.8	100.4	128.8	106.7	105.7	112.3	87.5	128.2
1983	110.9	93.8	130.2	101.8	108.9	118.3	85.2	138.8

TABLE VI. MANUFACTURING INDUSTRIES

17. Electrical Machinery

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	16.0	51.1	26.7	46.3	34.7	31.4	60.1	52.3
1949	14.7	43.9	26.4	40.5	36.4	33.6	55.9	60.0
1950	17.9	52.2	26.9	47.3	37.9	34.3	66.5	51.6
1951	21.3	59.1	29.2	53.2	40.1	36.1	73.1	49.4
1952	26.1	63.7	30.3	57.1	45.7	41.0	86.1	47.6
1953	27.1	71.3	31.4	63.5	42.7	38.0	86.3	44.1
1954	24.3	61.9	31.3	55.9	43.5	39.2	77.7	50.5
1955	26.1	65.4	32.3	58.9	44.3	39.9	81.0	49.3
1956	28.4	69.9	33.7	62.8	45.3	40.7	84.3	48.2
1957	29.5	70.0	34.4	63.0	46.8	42.2	85.9	49.1
1958	27.8	64.5	34.2	58.5	47.5	43.1	81.3	53.0
1959	33.3	73.1	35.2	65.7	50.7	45.6	94.6	48.2
1960	35.0	75.5	37.6	68.0	51.4	46.3	93.1	49.8
1961	36.9	76.2	39.9	69.1	53.4	48.5	92.6	52.3
1962	41.6	81.3	43.8	74.0	56.2	51.1	94.9	53.9
1963	45.6	80.0	45.6	73.3	62.2	57.0	100.0	57.0
1964	48.2	80.0	48.3	73.9	65.3	60.3	99.9	60.3
1965	57.4	87.0	53.4	80.5	71.3	66.0	107.5	61.4
1966	66.2	100.2	61.7	92.8	71.3	66.1	107.2	61.6
1967	68.8	101.2	67.0	94.6	72.7	68.0	102.6	66.2
1968	72.6	102.5	71.0	96.5	75.2	70.8	102.2	69.3
1969	78.6	104.6	76.1	99.2	79.3	75.2	103.4	72.7
1970	73.2	98.3	78.8	94.6	77.4	74.5	93.0	80.1
1971	74.0	92.1	79.0	89.6	82.5	80.3	93.6	85.8
1972	83.1	96.8	81.2	93.8	88.6	85.9	102.3	83.9
1973	90.7	105.0	89.5	102.0	88.9	86.4	101.3	85.3
1974	84.0	103.3	94.2	101.5	82.7	81.3	89.2	91.2
1975	77.8	88.9	91.6	89.5	87.0	87.5	85.0	103.0
1976	86.7	93.5	94.9	93.8	92.5	92.8	91.4	101.5
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	113.6	106.6	106.9	106.7	106.5	106.6	106.3	100.3
1979	121.4	112.3	116.5	113.1	107.3	108.1	104.1	103.8
1980	128.0	109.9	124.6	112.7	113.6	116.4	102.8	113.3
1981	134.4	110.5	131.7	114.5	117.4	121.7	102.1	119.2
1982	129.5	104.8	133.9	110.3	117.4	123.5	96.7	127.8
1983	135.4	108.9	141.0	115.0	117.7	124.3	96.0	129.4

TABLE VI. MANUFACTURING INDUSTRIES

18. Transportation Equipment

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	23.3	62.7	35.4	55.6	41.9	37.1	65.8	56.4
1949	23.6	60.2	35.1	53.7	43.9	39.2	67.3	58.2
1950	31.2	65.5	36.4	57.9	53.8	47.6	85.7	55.6
1951	34.2	78.8	40.3	68.7	49.7	43.4	84.7	51.2
1952	39.0	91.6	42.4	78.6	49.6	42.6	91.9	46.3
1953	47.6	106.1	44.2	89.7	53.1	44.9	107.7	41.7
1954	43.7	92.3	45.5	80.0	54.6	47.3	95.9	49.3
1955	51.7	99.8	48.2	86.3	59.9	51.8	107.1	48.3
1956	44.3	97.6	52.4	85.8	51.6	45.3	84.5	53.6
1957	47.3	99.4	54.0	87.6	54.0	47.6	87.6	54.3
1958	39.1	82.9	53.4	75.3	51.9	47.1	73.3	64.4
1959	43.7	87.9	54.2	79.2	55.2	49.8	80.7	61.7
1960	44.4	85.8	53.5	77.5	57.2	51.7	82.9	62.4
1961	42.2	80.5	54.0	73.7	57.3	52.5	78.2	67.1
1962	49.8	88.9	55.8	80.4	62.0	56.0	89.3	62.7
1963	56.7	92.5	58.4	83.7	67.8	61.4	97.1	63.2
1964	59.7	92.1	61.1	84.1	71.0	64.8	97.7	66.4
1965	67.8	100.4	65.0	91.3	74.4	67.6	104.4	64.8
1966	73.5	109.2	72.2	99.7	73.7	67.3	101.7	66.1
1967	73.5	108.1	79.8	100.8	72.9	68.0	92.0	73.9
1968	82.3	114.3	84.0	106.6	77.2	71.9	97.9	73.5
1969	79.3	111.7	88.0	105.7	75.1	71.0	90.2	78.8
1970	63.1	94.0	85.5	91.8	68.8	67.2	73.8	91.0
1971	70.6	90.3	84.1	88.8	79.6	78.2	84.0	93.1
1972	76.7	94.0	87.6	92.4	83.0	81.5	87.5	93.2
1973	88.4	102.1	91.5	99.4	88.9	86.6	96.5	89.7
1974	80.3	95.3	94.1	95.0	84.6	84.3	85.4	98.7
1975	76.7	87.3	93.7	88.9	86.2	87.9	81.8	107.4
1976	90.2	94.1	96.0	94.6	95.3	95.8	93.9	102.1
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	104.1	106.1	106.6	106.2	98.1	98.2	97.7	100.5
1979	98.7	107.2	115.9	109.4	90.2	92.1	85.2	108.1
1980	79.6	96.8	122.5	103.3	77.0	82.2	65.0	126.5
1981	79.0	97.2	128.6	105.2	75.1	81.3	61.4	132.3
1982	74.3	89.2	134.8	100.8	73.7	83.2	55.1	151.0
1983	88.0	94.1	136.7	104.9	83.9	93.5	64.4	145.3

TABLE VI. MANUFACTURING INDUSTRIES

19. Instruments

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	18.3	48.2	26.1	42.9	42.6	37.9	70.1	54.0
1949	17.8	43.5	26.3	39.2	45.4	40.9	67.6	60.5
1950	20.9	47.3	28.1	42.5	49.2	44.2	74.3	59.5
1951	25.6	57.6	32.1	51.4	49.8	44.4	79.7	55.7
1952	29.4	63.3	33.9	56.2	52.4	46.5	86.8	53.6
1953	32.0	68.9	35.4	60.9	52.6	46.5	90.5	51.4
1954	31.5	61.8	35.6	55.3	57.0	51.0	88.5	57.6
1955	33.5	62.7	37.8	56.4	59.3	53.3	88.4	60.3
1956	35.4	65.7	40.5	59.2	59.8	54.0	87.4	61.7
1957	34.4	65.8	41.8	59.5	57.7	52.2	82.3	63.5
1958	34.1	61.2	41.8	55.9	60.9	55.6	81.6	68.2
1959	38.3	66.8	43.5	60.7	63.1	57.3	88.0	65.2
1960	39.6	68.2	45.6	62.2	63.7	58.1	86.9	66.9
1961	38.6	67.3	47.2	61.9	62.3	57.3	81.8	70.0
1962	43.1	69.4	48.9	63.9	67.4	62.0	88.1	70.4
1963	45.1	69.4	51.1	64.4	70.1	65.0	88.3	73.6
1964	46.3	69.9	53.2	65.2	71.0	66.2	87.0	76.1
1965	53.4	74.2	56.0	69.1	77.2	72.0	95.4	75.4
1966	61.3	83.2	60.8	77.1	79.6	73.7	100.8	73.1
1967	63.2	85.9	65.3	80.1	78.9	73.6	96.7	76.1
1968	67.0	86.4	68.2	81.1	82.6	77.6	98.3	79.0
1969	74.4	89.5	72.2	84.4	88.2	83.2	103.1	80.7
1970	65.5	85.1	75.6	82.4	79.5	76.9	86.5	88.9
1971	66.0	79.5	77.3	78.8	83.8	83.1	85.4	97.3
1972	73.7	84.1	80.3	83.0	88.8	87.6	91.8	95.5
1973	84.2	91.4	85.6	89.7	93.9	92.2	98.4	93.7
1974	89.0	96.0	91.9	94.8	93.9	92.8	96.9	95.8
1975	84.9	87.3	92.4	88.8	95.7	97.3	92.0	105.8
1976	91.4	92.8	96.1	93.8	97.4	98.5	95.1	103.6
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	107.9	106.7	104.7	106.3	101.6	101.2	103.1	98.2
1979	112.0	113.0	112.0	112.9	99.2	99.2	100.0	99.1
1980	109.2	115.0	118.8	116.3	93.9	95.0	92.0	103.2
1981	120.6	117.7	126.1	120.4	100.1	102.4	95.6	107.1
1982	126.5	114.2	128.6	118.6	106.6	110.8	98.4	112.6
1983	126.8	111.9	132.4	118.1	107.4	113.3	95.8	118.4

TABLE VI. MANUFACTURING INDUSTRIES

20. Miscellaneous Manufactures

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	40.2	100.1	46.4	88.0	45.7	40.2	86.8	46.3
1949	36.2	89.7	47.7	80.3	45.0	40.3	75.9	53.1
1950	41.1	95.0	52.4	85.5	48.1	43.2	78.5	55.1
1951	43.1	95.7	60.6	87.9	49.0	45.0	71.0	63.3
1952	44.1	93.4	69.8	88.2	50.1	47.3	63.2	74.8
1953	45.8	99.3	76.5	94.2	48.6	46.1	59.9	77.1
1954	43.9	90.6	79.0	88.1	49.9	48.5	55.6	87.2
1955	48.7	92.9	85.0	91.3	53.4	52.4	57.3	91.5
1956	49.0	93.6	90.5	93.1	52.6	52.3	54.1	96.7
1957	48.2	89.8	92.2	90.5	53.2	53.7	52.3	102.6
1958	47.4	86.1	92.3	87.6	54.1	55.1	51.4	107.2
1959	53.1	90.0	94.5	91.2	58.2	59.0	56.2	105.0
1960	52.1	89.4	87.9	89.3	58.3	58.3	59.3	98.2
1961	53.4	87.3	81.9	86.3	61.9	61.2	65.2	93.9
1962	55.9	89.7	79.3	87.6	63.8	62.4	70.5	88.5
1963	56.3	88.2	78.3	86.3	65.3	63.8	71.9	88.8
1964	58.6	90.0	78.8	87.8	66.8	65.2	74.4	87.5
1965	62.4	96.5	80.0	93.1	67.0	64.6	78.0	82.9
1966	67.1	101.8	86.3	98.7	68.0	65.9	77.7	84.8
1967	66.9	98.0	90.4	96.6	69.3	68.2	74.0	92.2
1968	72.1	98.1	89.6	96.4	74.8	73.5	80.5	91.4
1969	76.1	98.8	92.3	97.6	77.9	77.0	82.4	93.4
1970	73.6	95.4	93.2	95.0	77.4	77.1	78.9	97.7
1971	77.0	93.0	92.8	93.0	82.8	82.8	83.0	99.8
1972	85.1	99.2	94.7	98.4	86.6	85.8	89.9	95.5
1973	90.5	102.1	99.1	101.5	89.2	88.7	91.3	97.1
1974	87.3	101.0	101.8	101.2	86.3	86.4	85.7	100.8
1975	89.8	92.6	94.7	93.0	96.5	96.9	94.8	102.3
1976	92.5	96.5	99.2	97.0	95.4	95.9	93.3	102.8
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	100.7	104.7	102.6	104.1	96.8	96.2	98.2	98.0
1979	102.4	101.3	110.2	102.8	99.7	101.1	93.0	108.7
1980	93.3	94.4	117.1	98.4	94.8	98.8	79.7	124.0
1981	106.7	93.5	120.3	98.2	108.6	114.1	88.6	128.8
1982	99.4	89.1	117.7	94.1	105.6	111.6	84.5	132.1
1983	100.5	90.9	118.4	95.8	105.0	110.5	84.9	130.2

Table VII
Quarterly Indexes of Productivity
1983 I to 1984 I
Total Factor, Labor, Capital and Capital/Labor Ratio
(1977=100)

1. **Business Economy**

	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1983 I	98.6	102.4	91.9	111.4
II	100.4	103.9	94.3	110.1
III	101.1	104.2	95.5	109.0
IV	102.2	105.3	96.7	108.9
1984 I	103.6	106.3	98.6	107.8
1982	98.0	101.2	91.9	110.0
1983	100.4	103.9	93.8	110.8
Percent Change: (Annual Rate)				
1983 I	2.1	1.9	2.6	-0.7
II	7.5	5.9	10.6	-4.3
III	2.6	1.2	5.4	-3.9
IV	4.4	4.2	4.8	-0.6
1984 I	5.6	4.1	8.3	-3.8
1982	-1.7	-0.1	-4.8	4.8
1983	2.5	2.7	2.0	0.7

2. **Goods Producing Industries**

1983 I	100.6	105.4	87.5	120.5
II	102.6	106.9	90.6	118.0
III	105.0	108.7	94.5	115.1
IV	106.7	110.5	95.8	115.4
1984 I	108.3	111.5	98.9	112.7
1982	99.2	103.3	87.0	118.7
1983	103.9	107.8	91.8	117.5
Percent Change: (Annual Rate)				
1983 I	1.9	0.0	7.2	-6.7
II	8.3	6.0	15.0	-7.8
III	9.8	6.9	18.4	-9.7
IV	6.4	6.6	5.6	1.0
1984 I	6.1	3.6	13.7	-8.9
1982	-1.5	0.6	-7.2	8.4
1983	4.7	4.4	5.4	-1.0

Table VII (Cont'd)
Quarterly Indexes of Productivity
1983 I to 1984 I
Total Factor, Labor, Capital and Capital/Labor Ratio
(1977=100)

3. Service Producing Industries

	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1983 I	98.1	100.3	95.3	105.2
II	99.7	101.7	97.2	104.6
III	99.1	101.1	96.7	104.5
IV	100.0	101.7	97.8	104.0
1984 I	101.1	102.8	99.0	103.9
1982	98.2	99.6	95.6	104.2
1983	99.2	101.2	95.7	105.8
Percent Change: (Annual Rate)				
1983 I	1.8	3.0	0.0	3.0
II	6.7	5.8	8.1	-2.2
III	-2.3	-2.5	-2.1	-0.4
IV	3.5	2.8	4.6	-1.8
1984 I	4.6	4.3	5.0	-0.6
1982	-1.4	-0.5	-2.9	2.6
1983	1.0	1.6	0.1	1.5

4. Nonfinancial Corporate Business

1983 I	102.2	104.2	97.5	106.8
II	104.3	105.8	100.7	105.1
III	105.6	106.9	102.6	104.2
IV	106.6	107.8	103.6	104.0
1984 I	107.2	108.3	104.4	103.8
1982	101.3	102.8	97.4	105.5
1983	104.4	106.2	99.8	106.4
Percent Change: (Annual Rate)				
1983 I	3.9	3.2	5.8	-2.5
II	8.5	6.6	13.8	-6.3
III	5.1	4.2	7.6	-3.2
IV	3.6	3.4	4.3	-0.9
1984 I	2.2	2.0	2.9	-0.9
1982	-0.7	0.5	-3.8	4.5
1983	3.1	3.3	2.4	0.8

Table VII (Cont'd)
Quarterly Indexes of Productivity
1983 I to 1984 I
Total Factor, Labor, Capital and Capital/Labor Ratio
(1977=100)

	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
5. Farming				
1983 I	119.1	124.5	114.4	108.8
II	113.0	116.3	110.1	105.6
III	105.2	107.0	103.7	103.2
IV	108.2	115.7	101.8	113.7
1984 I	116.2	123.2	110.1	111.9
1982	120.7	127.9	113.7	112.5
1983	111.4	114.8	107.6	106.7
Percent Change: (Annual Rate)				
1983 I	-23.0	-32.0	-14.0	-20.9
II	-19.0	-23.8	-14.3	-11.1
III	-24.8	-28.3	-21.3	-8.9
IV	11.7	36.8	-7.1	47.3
1984 I	32.9	28.4	36.9	-6.1
1982	-2.3	-0.8	-3.7	3.1
1983	-7.7	-10.2	-5.4	-5.2
6. Manufacturing Industry				
1983 I	101.8	109.5	84.3	129.9
II	104.6	111.7	88.0	127.0
III	108.2	114.9	92.3	124.6
IV	109.5	116.0	94.1	123.3
1984	110.8	116.8	96.3	121.3
1982	99.7	106.5	83.7	127.3
1983	105.9	113.1	89.1	126.9
Percent Change: (Annual Rate)				
1983 I	7.9	6.2	11.7	-4.9
II	11.6	8.5	19.0	-8.8
III	14.4	11.8	20.7	-7.4
IV	5.1	3.8	8.2	-4.1
1984 I	4.9	2.9	9.8	-6.3
1982	-1.5	1.1	-7.8	9.8
1983	6.3	6.2	6.5	-0.3

Table VII (Cont'd)
Quarterly Indexes of Productivity
1983 I to 1984 I
Total Factor, Labor, Capital and Capital/Labor Ratio
(1977=100)

7. **Nonfarm Nonmanufacturing Industry**

	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1983 I	96.8	99.0	93.5	105.8
II	98.4	100.4	95.4	105.3
III	98.1	99.9	95.4	104.7
IV	98.8	100.5	96.3	104.3
1984 I	99.9	101.4	97.8	103.6
1982	96.5	98.1	93.8	104.6
1983	97.8	100.0	94.1	106.2
Percent Change: (Annual Rate)				
1983 I	1.3	2.2	-0.1	2.3
II	7.0	6.2	8.3	-2.0
III	-1.2	-2.0	0.1	-2.1
IV	2.7	2.1	3.8	-1.6
1984 I	4.6	3.6	6.4	-2.6
1982	-1.4	-0.3	-3.2	3.0
1983	1.3	1.9	0.4	1.5

Note: Percent changes are average annual rates of change from the previous quarter. Output and labor are revised, as published by the Bureau of Labor Statistics, Department of Labor, May 29, 1984, "Productivity and Costs" release. Capital of revisions are based on Department of Commerce estimates.

TABLE VII. BUSINESS ECONOMY AND MAJOR SECTORS

1. Business Economy

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1975 I	85.7	93.0	92.5	93.8	91.4	92.1	92.6	99.5
1975 II	87.2	92.1	93.0	93.3	93.4	94.6	93.8	100.9
1975 III	89.5	93.2	93.5	94.2	95.0	96.0	95.7	100.4
1975 IV	90.3	94.4	94.1	95.2	94.9	95.7	96.0	99.7
1976 I	92.9	95.6	94.7	96.2	96.6	97.2	98.2	99.0
1976 II	93.5	95.8	95.3	96.6	96.8	97.6	98.1	99.5
1976 III	94.0	96.1	96.0	97.0	97.0	97.9	98.0	99.9
1976 IV	94.6	96.6	96.7	97.6	97.0	98.0	97.9	100.1
1977 I	97.0	97.6	97.5	98.4	98.6	99.4	99.5	99.9
1977 II	99.5	99.9	98.3	99.8	99.6	99.6	101.2	98.4
1977 III	101.5	100.6	99.2	100.4	101.1	100.9	102.3	98.6
1977 IV	102.0	101.5	100.0	101.1	100.9	100.5	102.0	98.6
1978 I	102.7	102.2	100.8	101.8	100.9	100.5	101.9	98.6
1978 II	105.5	104.7	101.5	103.8	101.7	100.8	103.9	96.9
1978 III	106.2	105.5	102.4	104.6	101.5	100.6	103.7	97.0
1978 IV	107.5	106.7	103.4	105.7	101.6	100.7	103.9	96.9
1979 I	108.0	107.8	104.4	106.7	101.2	100.2	103.4	96.9
1979 II	107.5	108.0	105.5	107.2	100.3	99.6	102.0	97.7
1979 III	108.0	109.0	106.4	108.3	99.7	99.0	101.4	97.6
1979 IV	107.9	109.1	107.4	108.6	99.3	98.9	100.4	98.5
1980 I	108.2	109.0	108.2	108.8	99.4	99.3	99.9	99.3
1980 II	105.3	106.9	109.0	107.6	97.8	98.5	96.6	102.0
1980 III	105.4	106.6	109.7	107.7	97.9	98.9	96.1	102.9
1980 IV	107.0	108.0	110.4	108.9	98.3	99.1	96.9	102.3
1981 I	109.2	108.6	111.2	109.5	99.7	100.5	98.2	102.4
1981 II	109.8	108.6	112.0	109.8	100.0	101.1	98.0	103.2
1981 III	111.2	108.7	112.9	110.2	100.9	102.3	98.5	103.9
1981 IV	108.9	107.7	113.8	109.7	99.3	101.2	95.8	105.7
1982 I	107.2	106.0	114.3	108.8	98.5	101.1	93.7	107.9
1982 II	106.9	106.2	115.0	109.1	98.0	100.7	93.0	108.3
1982 III	106.6	105.4	115.6	108.8	98.0	101.1	92.2	109.6
1982 IV	106.0	104.0	116.0	108.0	98.1	101.9	91.4	111.6
1983 I	107.1	104.6	116.5	108.6	98.6	102.4	91.9	111.4
1983 II	110.4	106.2	117.0	109.9	100.4	103.9	94.3	110.1
1983 III	112.4	107.9	117.7	111.2	101.1	104.2	95.5	109.0
1983 IV	114.5	108.8	118.5	112.1	102.2	105.3	96.7	108.9
1984 I	117.8	110.7	119.4	113.7	103.6	106.3	98.6	107.8

TABLE VII. BUSINESS ECONOMY AND MAJOR SECTORS

2. Goods Producing Sector

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1976 I	93.2	95.7	95.5	95.9	97.1	97.3	97.5	99.8
1976 II	93.6	96.0	96.1	96.2	97.3	97.5	97.4	100.1
1976 III	94.0	95.9	96.7	96.3	97.6	98.1	97.3	100.8
1976 IV	95.9	96.2	97.3	96.7	99.2	99.7	98.6	101.1
1977 I	97.0	97.4	97.7	97.8	99.2	99.5	99.2	100.3
1977 II	99.6	100.4	98.5	100.2	99.5	99.2	101.2	98.0
1977 III	101.6	100.5	99.3	100.4	101.2	101.1	102.3	98.8
1977 IV	101.8	101.6	100.0	101.3	100.5	100.2	101.8	98.4
1978 I	101.3	101.8	100.5	101.5	99.8	99.5	100.8	98.7
1978 II	104.7	105.3	101.2	104.4	100.3	99.4	103.5	96.1
1978 III	106.2	106.5	101.9	105.4	100.7	99.7	104.2	95.7
1978 IV	107.3	107.3	102.6	106.2	101.0	100.0	104.5	95.6
1979 I	107.5	107.5	103.8	106.7	100.8	100.0	103.6	96.6
1979 II	107.2	107.6	105.0	107.0	100.2	99.7	102.1	97.6
1979 III	107.3	108.6	106.2	108.1	99.3	98.9	101.0	97.8
1979 IV	107.7	108.0	107.4	107.9	99.9	99.8	100.3	99.5
1980 I	106.9	108.3	108.3	108.3	98.7	98.7	98.6	100.1
1980 II	102.1	102.9	109.0	104.3	97.8	99.2	93.7	105.9
1980 III	99.5	101.5	109.4	103.4	96.2	98.0	90.9	107.8
1980 IV	103.1	103.4	110.1	105.0	98.2	99.6	93.6	106.4
1981 I	106.1	104.6	110.9	106.1	100.1	101.5	95.7	106.1
1981 II	107.1	103.5	111.7	105.4	101.6	103.4	95.9	107.9
1981 III	108.0	103.5	112.6	105.6	102.3	104.4	95.9	108.8
1981 IV	103.9	102.2	113.3	104.8	99.1	101.7	91.7	110.8
1982 I	101.4	98.6	113.8	102.1	99.2	102.8	89.1	115.4
1982 II	108.6	97.6	114.1	101.4	107.1	111.3	95.2	116.9
1982 III	98.7	95.6	114.3	99.9	98.7	103.2	86.3	119.6
1982 IV	98.3	93.2	114.3	98.2	100.1	105.4	86.0	122.6
1983 I	100.0	94.8	114.3	99.4	100.6	105.4	87.5	120.5
1983 II	103.7	96.9	114.4	101.0	102.6	106.9	90.6	118.0
1983 III	108.3	99.6	114.6	103.1	105.0	108.7	94.5	115.1
1983 IV	110.1	99.6	115.0	103.2	106.7	110.5	95.8	115.4
1984 I	114.4	102.6	115.6	105.6	108.3	111.5	98.9	112.7

TABLE VII. BUSINESS ECONOMY AND MAJOR SECTORS

3. Service Producing Sector

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1976 I	92.7	95.7	94.2	95.6	97.0	96.9	98.5	98.4
1976 II	93.4	95.9	94.9	96.0	97.3	97.4	98.4	99.0
1976 III	94.0	96.4	95.6	96.6	97.4	97.6	98.3	99.2
1976 IV	93.7	97.0	96.3	97.2	96.4	96.6	97.2	99.3
1977 I	97.0	98.0	97.4	98.2	98.8	99.1	99.7	99.4
1977 II	99.3	99.7	98.2	99.5	99.8	99.7	101.1	98.6
1977 III	101.4	100.8	99.1	100.5	101.0	100.6	102.3	98.3
1977 IV	102.2	101.6	100.0	101.2	101.0	100.6	102.2	98.5
1978 I	103.6	102.6	100.9	102.2	101.4	101.0	102.7	98.3
1978 II	106.1	104.5	101.7	103.6	102.4	101.6	104.4	97.3
1978 III	106.2	105.1	102.6	104.3	101.8	101.1	103.5	97.7
1978 IV	107.6	106.5	103.8	105.6	101.9	101.1	103.6	97.5
1979 I	108.3	108.2	104.7	107.0	101.2	100.2	103.5	96.8
1979 II	107.7	108.5	105.7	107.6	100.1	99.3	102.0	97.4
1979 III	108.4	109.6	106.5	108.6	99.9	99.0	101.8	97.3
1979 IV	108.0	110.1	107.4	109.3	98.8	98.1	100.5	97.6
1980 I	109.1	109.7	108.1	109.3	99.8	99.5	100.9	98.6
1980 II	107.6	109.9	109.0	109.8	98.0	97.9	98.7	99.1
1980 III	109.6	110.5	109.8	110.4	99.3	99.2	99.9	99.3
1980 IV	109.8	111.4	110.6	111.3	98.7	98.5	99.3	99.2
1981 I	111.3	111.7	111.3	111.7	99.6	99.7	100.0	99.7
1981 II	111.7	112.5	112.2	112.6	99.2	99.3	99.6	99.8
1981 III	113.4	112.7	113.1	113.1	100.3	100.6	100.3	100.3
1981 IV	112.5	111.8	114.0	112.9	99.7	100.6	98.7	102.0
1982 I	111.3	111.6	114.6	113.0	98.5	99.8	97.1	102.7
1982 II	112.1	112.6	115.4	113.9	98.4	99.6	97.1	102.6
1982 III	112.3	112.8	116.2	114.3	98.2	99.5	96.6	103.1
1982 IV	111.5	112.0	116.9	114.1	97.7	99.5	95.3	104.4
1983 I	112.2	111.9	117.6	114.3	98.1	100.3	95.3	105.2
1983 II	115.1	113.2	118.4	115.4	99.7	101.7	97.2	104.6
1983 III	115.4	114.2	119.3	116.4	99.1	101.1	96.7	104.5
1983 IV	117.7	115.6	120.3	117.7	100.0	101.7	97.8	104.0
1984 I	120.2	116.9	121.4	118.8	101.1	102.8	99.0	103.9

TABLE VII. BUSINESS ECONOMY AND MAJOR SECTORS

4. Nonfinancial Corporate Business

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1975 I	84.2	91.1	92.5	92.3	91.2	92.5	91.1	101.5
1975 II	85.9	90.1	92.4	91.6	93.8	95.3	92.9	102.6
1975 III	88.7	91.4	92.5	92.6	95.8	97.1	95.9	101.2
1975 IV	90.1	92.7	92.7	93.6	96.2	97.2	97.2	100.0
1976 I	92.8	94.6	93.6	95.2	97.5	98.1	99.1	99.0
1976 II	93.3	95.0	94.6	95.8	97.3	98.1	98.6	99.5
1976 III	94.1	95.5	95.3	96.4	97.6	98.5	98.8	99.7
1976 IV	94.5	96.3	95.7	97.0	97.4	98.2	98.8	99.4
1977 I	96.4	97.6	96.5	98.1	98.3	98.8	99.9	98.9
1977 II	99.5	99.6	97.7	99.6	99.9	99.9	101.8	98.1
1977 III	101.7	100.8	99.1	100.6	101.1	101.0	102.6	98.4
1977 IV	102.4	101.9	100.0	101.5	100.8	100.5	102.4	98.2
1978 I	102.8	102.3	101.1	102.1	100.7	100.4	101.7	98.8
1978 II	106.4	105.2	102.4	104.5	101.8	101.2	104.0	97.3
1978 III	107.1	106.3	103.4	105.7	101.3	100.7	103.5	97.3
1978 IV	109.0	107.6	104.5	106.9	102.0	101.3	104.4	97.1
1979 I	110.2	108.7	105.1	107.8	102.2	101.4	104.8	96.7
1979 II	109.8	108.9	105.8	108.1	101.5	100.9	103.8	97.2
1979 III	110.4	109.8	106.0	108.9	101.4	100.6	104.2	96.5
1979 IV	109.9	109.9	105.8	108.9	100.9	100.0	103.9	96.2
1980 I	109.4	110.0	106.2	109.1	100.3	99.5	103.1	96.5
1980 II	106.5	107.7	106.8	107.6	99.0	98.9	99.7	99.2
1980 III	107.3	106.9	106.7	106.9	100.3	100.4	100.6	99.8
1980 IV	108.8	108.3	106.7	108.0	100.7	100.4	101.9	98.5
1981 I	111.0	109.1	107.3	108.7	102.1	101.8	103.5	98.3
1981 II	111.7	109.3	108.0	109.1	102.4	102.1	103.4	98.8
1981 III	112.9	109.6	109.2	109.6	103.0	103.0	103.4	99.7
1981 IV	110.4	108.1	110.1	108.7	101.6	102.2	100.3	101.9
1982 I	108.6	106.0	110.4	107.3	101.2	102.4	98.3	104.1
1982 II	108.1	105.7	110.7	107.1	100.9	102.3	97.6	104.8
1982 III	108.0	104.6	111.2	106.4	101.5	103.3	97.1	106.3
1982 IV	106.4	102.9	110.6	105.0	101.3	103.4	96.1	107.5
1983 I	107.6	103.3	110.3	105.2	102.2	104.2	97.5	106.8
1983 II	111.3	105.2	110.5	106.7	104.3	105.8	100.7	105.1
1983 III	114.3	106.9	111.4	108.2	105.6	106.9	102.6	104.2
1983 IV	116.8	108.4	112.7	109.6	106.6	107.8	103.6	104.0
1984 I	119.5	110.3	114.5	111.5	107.2	108.3	104.4	103.8

TABLE VII. BUSINESS ECONOMY AND MAJOR SECTORS

5. Farming

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year		Output and Inputs				Productivity Ratios			
		Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1975	I	95.0	104.1	96.4	101.9	93.2	91.2	98.5	92.6
1975	II	102.9	103.9	97.0	102.1	100.7	99.0	106.0	93.3
1975	III	105.1	107.4	97.6	104.2	100.9	97.9	107.7	90.9
1975	IV	100.5	102.2	98.2	101.9	98.6	98.3	102.3	96.1
1976	I	100.3	99.0	98.5	100.4	99.9	101.3	101.8	99.5
1976	II	93.2	103.1	98.6	102.5	90.9	90.4	94.5	95.6
1976	III	93.4	100.5	98.8	101.3	92.2	92.9	94.5	98.3
1976	IV	98.4	97.1	98.9	99.6	98.8	101.4	99.5	101.9
1977	I	97.3	95.9	99.2	99.0	98.3	101.4	98.1	103.4
1977	II	95.2	103.4	99.5	102.2	93.2	92.1	95.7	96.2
1977	III	105.8	97.1	99.7	98.8	107.1	109.0	106.1	102.7
1977	IV	101.7	99.1	100.0	99.7	102.0	102.7	101.7	100.9
1978	I	102.9	101.1	99.7	100.4	102.5	101.9	103.3	98.6
1978	II	96.4	100.7	99.4	100.1	96.4	95.8	97.0	98.8
1978	III	98.5	101.4	99.1	100.3	98.2	97.2	99.4	97.7
1978	IV	96.5	100.0	98.8	99.5	97.0	96.5	97.7	98.8
1979	I	100.0	100.2	100.0	100.1	99.9	99.8	100.0	99.8
1979	II	105.4	98.0	101.2	99.7	105.7	107.5	104.1	103.3
1979	III	104.6	97.4	102.5	100.0	104.6	107.4	102.1	105.2
1979	IV	105.4	100.7	103.7	102.2	103.1	104.7	101.7	103.0
1980	I	107.7	96.5	103.9	100.3	107.4	111.6	103.7	107.7
1980	II	112.4	95.5	104.1	99.9	112.5	117.6	108.0	108.9
1980	III	102.6	96.2	103.9	100.2	102.4	106.6	98.7	108.0
1980	IV	102.9	98.1	104.1	101.2	101.8	105.0	98.9	106.1
1981	I	109.2	98.0	104.3	101.2	107.9	111.4	104.7	106.5
1981	II	123.2	95.8	104.8	100.4	122.8	128.6	117.6	109.3
1981	III	132.7	96.3	105.3	100.9	131.6	137.8	126.0	109.3
1981	IV	134.2	96.0	105.7	100.9	132.9	139.7	127.0	110.1
1982	I	130.8	96.1	105.8	101.0	129.4	136.1	123.6	110.1
1982	II	114.6	93.4	105.8	99.7	115.0	122.7	108.3	113.3
1982	III	109.7	93.4	105.7	99.6	110.1	117.5	103.8	113.2
1982	IV	125.5	91.6	105.6	98.7	127.2	137.1	118.8	115.4
1983	I	120.8	97.1	105.6	101.4	119.1	124.5	114.4	108.8
1983	II	116.2	99.9	105.5	102.8	113.0	116.3	110.1	105.6
1983	III	109.0	101.9	105.2	103.6	105.2	107.0	103.7	103.2
1983	IV	107.1	92.6	105.2	99.0	108.2	115.7	101.8	113.7
1984	I	116.4	94.5	105.8	100.2	116.2	123.2	110.1	111.9

TABLE VII. BUSINESS ECONOMY AND MAJOR SECTORS

6. Manufacturing Industry

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1975 I	80.9	91.5	92.7	92.4	87.5	88.4	87.3	101.3
1975 II	82.7	89.8	92.9	91.2	90.6	92.0	89.0	103.5
1975 III	88.1	91.2	93.2	92.3	95.4	96.6	94.5	102.2
1975 IV	89.9	93.2	93.6	94.0	95.7	96.4	96.1	100.3
1976 I	92.1	95.7	94.1	95.9	96.0	96.2	97.8	98.4
1976 II	93.2	95.7	94.9	96.1	96.9	97.4	98.2	99.2
1976 III	94.2	96.1	95.7	96.7	97.4	97.9	98.4	99.6
1976 IV	94.9	96.5	96.5	97.2	97.7	98.3	98.3	100.0
1977 I	96.9	97.9	97.3	98.3	98.6	99.0	99.7	99.3
1977 II	99.8	99.8	98.1	99.7	100.0	99.9	101.7	98.3
1977 III	101.2	100.8	99.2	100.5	100.7	100.4	102.1	98.4
1977 IV	102.1	101.6	100.0	101.3	100.8	100.5	102.1	98.4
1978 I	102.0	102.1	100.9	101.9	100.1	99.8	101.0	98.8
1978 II	104.7	104.3	102.0	103.7	101.0	100.4	102.7	97.8
1978 III	106.5	105.2	103.1	104.7	101.7	101.2	103.3	98.0
1978 IV	108.1	106.2	104.2	105.7	102.3	101.8	103.8	98.2
1979 I	108.9	107.3	105.5	106.9	101.9	101.5	103.2	98.4
1979 II	108.1	106.4	106.8	106.5	101.4	101.6	101.2	100.4
1979 III	108.0	106.9	108.0	107.2	100.8	101.1	100.0	101.1
1979 IV	107.8	105.8	109.4	106.7	101.0	101.9	98.6	103.4
1980 I	107.7	105.3	110.7	106.7	101.0	102.3	97.4	105.1
1980 II	101.5	101.1	111.8	103.8	97.7	100.4	90.8	110.5
1980 III	99.8	99.4	112.4	102.7	97.1	100.4	88.7	113.1
1980 IV	104.9	101.3	113.3	104.3	100.6	103.6	92.6	111.9
1981 I	106.8	101.6	114.4	104.9	101.8	105.1	93.3	112.6
1981 II	107.8	102.2	115.4	105.6	102.1	105.4	93.4	112.8
1981 III	108.1	101.9	116.6	105.6	102.4	106.1	92.7	114.4
1981 IV	103.3	98.9	117.3	103.6	99.7	104.4	88.1	118.5
1982 I	100.3	95.3	117.7	101.0	99.3	105.2	85.2	123.5
1982 II	99.6	94.4	118.1	100.4	99.1	105.4	84.3	125.1
1982 III	99.5	92.3	118.5	98.9	100.6	107.8	84.0	128.3
1982 IV	97.1	90.0	118.4	97.2	99.9	107.8	82.0	131.6
1983 I	99.7	91.1	118.4	98.0	101.8	109.5	84.3	129.9
1983 II	104.5	93.5	118.7	99.9	104.6	111.7	88.0	127.0
1983 III	110.0	95.7	119.3	101.7	108.2	114.9	92.3	124.6
1983 IV	112.7	97.2	119.8	102.9	109.5	116.0	94.1	123.3
1984 I	116.3	99.5	120.7	104.9	110.8	116.8	96.3	121.3

TABLE VII. BUSINESS ECONOMY AND MAJOR SECTORS

7. Nonfarm Nonmanufacturing Industry

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1975 I	87.6	92.9	91.9	93.5	93.6	94.3	95.3	99.0
1975 II	88.6	92.3	92.4	93.3	95.0	96.0	96.0	100.1
1975 III	89.5	93.1	93.0	94.0	95.1	96.1	96.2	99.9
1975 IV	90.1	94.3	93.6	95.1	94.8	95.5	96.3	99.2
1976 I	93.0	95.3	94.2	95.9	96.9	97.6	98.7	98.8
1976 II	93.6	95.3	94.9	96.2	97.3	98.2	98.6	99.6
1976 III	94.0	95.7	95.6	96.7	97.2	98.3	98.3	99.9
1976 IV	94.3	96.5	96.3	97.5	96.7	97.7	97.9	99.8
1977 I	97.1	97.6	97.3	98.4	98.6	99.4	99.8	99.7
1977 II	99.5	99.6	98.2	99.7	99.8	99.9	101.3	98.5
1977 III	101.5	100.7	99.1	100.5	101.0	100.7	102.4	98.4
1977 IV	102.0	101.6	100.0	101.2	100.8	100.4	102.0	98.4
1978 I	103.0	102.3	100.9	101.9	101.1	100.7	102.1	98.7
1978 II	106.4	105.3	101.8	104.2	102.1	101.0	104.5	96.7
1978 III	106.4	106.0	102.7	105.0	101.3	100.3	103.6	96.9
1978 IV	107.6	107.4	103.9	106.3	101.2	100.2	103.6	96.7
1979 I	107.9	108.5	104.8	107.3	100.5	99.4	103.0	96.6
1979 II	107.3	109.4	105.8	108.2	99.2	98.1	101.5	96.7
1979 III	108.1	110.8	106.6	109.5	98.8	97.6	101.4	96.2
1979 IV	108.0	111.2	107.5	110.0	98.2	97.1	100.5	96.7
1980 I	108.4	111.5	108.3	110.5	98.1	97.2	100.1	97.1
1980 II	106.8	110.2	109.0	110.0	97.1	96.9	98.0	98.9
1980 III	108.2	110.6	109.8	110.5	98.0	97.9	98.5	99.3
1980 IV	108.2	111.7	110.7	111.5	97.1	96.9	97.8	99.1
1981 I	110.3	112.5	111.4	112.2	98.3	98.1	99.0	99.1
1981 II	110.2	112.4	112.3	112.5	97.9	98.0	98.1	99.9
1981 III	111.7	112.7	113.2	113.0	98.8	99.1	98.7	100.4
1981 IV	110.5	112.4	114.1	113.2	97.7	98.3	96.9	101.5
1982 I	109.4	111.5	114.8	112.8	97.0	98.2	95.3	103.0
1982 II	110.1	112.4	115.6	113.7	96.9	98.0	95.3	102.9
1982 III	109.9	112.2	116.4	113.8	96.5	98.0	94.5	103.7
1982 IV	109.4	111.2	117.0	113.4	96.5	98.4	93.5	105.2
1983 I	110.0	111.2	117.7	113.7	96.8	99.0	93.5	105.8
1983 II	112.9	112.4	118.4	114.7	98.4	100.4	95.4	105.3
1983 III	113.8	113.8	119.2	115.9	98.1	99.9	95.4	104.7
1983 IV	115.7	115.2	120.2	117.1	98.8	100.5	96.3	104.3
1984 I	118.5	116.9	121.2	118.6	99.9	101.4	97.8	103.6

S.I.C. 331 - Blast Furnace, Basic Steel Products

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Total Factor Input	Total Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1958	68.4	101.5	77.7	88.3	77.5	67.4	88.0	76.6
1959	79.1	104.5	76.5	89.4	88.5	75.7	103.4	73.2
1960	79.3	111.4	79.0	94.1	84.3	71.2	100.4	70.9
1961	75.9	103.4	79.9	90.2	84.1	73.4	95.0	77.3
1962	79.8	103.5	79.7	90.2	88.5	77.1	100.1	77.0
1963	84.7	105.1	80.4	91.4	92.7	80.6	105.3	76.5
1964	96.2	114.4	82.6	96.7	99.5	84.1	116.5	72.2
1965	104.6	119.6	85.2	100.4	104.2	87.5	122.8	71.2
1966	105.3	118.0	89.3	102.0	103.2	89.2	117.9	75.7
1967	97.9	113.3	93.0	102.1	95.9	86.4	105.2	82.1
1968	103.7	115.9	95.9	104.8	98.9	89.5	108.2	82.7
1969	106.3	118.1	97.9	106.9	99.4	90.0	108.6	82.9
1970	98.3	112.2	99.7	105.3	93.3	87.6	98.6	88.9
1971	93.5	101.7	98.9	100.3	93.3	91.9	94.5	97.2
1972	100.3	103.1	98.7	100.7	99.6	97.3	101.7	95.7
1973	119.4	112.0	97.1	104.1	114.7	106.6	122.9	86.7
1974	119.3	112.0	98.0	104.6	114.1	106.5	121.7	87.5
1975	90.3	96.8	100.9	99.0	91.2	93.3	89.5	104.2
1976	97.6	98.6	102.2	100.5	97.1	99.0	95.5	103.7
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	112.0	103.4	98.4	100.7	111.2	108.3	113.9	95.1
1979	111.7	104.5	97.3	100.7	110.9	106.9	114.7	93.2
1980	92.7	90.1	95.0	92.7	100.0	102.9	97.6	105.4
1981	101.8	90.9	94.7	92.9	109.6	112.0	107.5	104.2
1982	61.7	67.9	91.1	80.2	76.9	90.9	67.8	134.1
1983	70.8	61.0	88.3	75.5	93.8	116.1	80.2	144.7

S.I.C. 2043 - Cereal Breakfast Foods
Output, Input and Productivity Ratios
(1977=100)

Year	Value Added	Labor Input	Capital Input	Materials Input	Energy Input	Gross Output	Total Input	Productivity	Factor Input	Productivity
1963	54.4	66.7	73.2	46.6	70.1	51.2	60.7	84.3	71.5	76.1
1964	56.1	67.8	75.0	51.2	71.1	54.1	63.7	85.0	73.2	76.7
1965	58.0	69.6	76.2	54.4	74.2	56.6	65.8	85.9	74.6	77.8
1966	59.4	70.5	76.3	54.0	76.3	57.3	65.8	87.0	74.8	79.5
1967	61.1	71.3	76.6	57.4	84.5	59.7	67.6	88.4	75.3	81.2
1968	62.9	68.4	75.5	55.9	88.7	60.1	66.0	91.1	73.7	85.4
1969	64.7	69.9	75.1	55.7	91.8	61.0	66.0	92.5	73.8	87.6
1970	69.2	71.3	78.6	60.2	91.8	65.6	69.6	94.2	76.8	90.2
1971	71.9	74.9	80.0	66.3	85.6	69.6	73.4	94.9	78.7	91.3
1972	78.4	76.0	80.3	66.4	94.8	73.4	73.7	99.7	79.2	99.0
1973	74.2	81.9	83.4	74.1	108.2	74.4	79.2	93.9	83.0	89.4
1974	63.8	84.8	86.1	75.0	82.5	68.7	81.1	84.7	85.7	74.4
1975	73.1	87.1	87.0	84.7	89.7	78.1	86.0	90.8	87.0	84.0
1976	87.9	89.2	94.1	86.3	104.1	87.3	90.0	97.0	92.9	94.7
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	103.4	98.2	107.9	94.0	102.1	99.5	97.9	101.5	100.9	102.5
1979	109.4	96.8	108.5	98.7	99.0	104.8	102.3	102.4	105.1	104.1
1980	107.9	95.3	115.5	85.4	113.4	98.4	99.6	98.8	110.4	97.7
1981	108.1	93.9	121.5	94.5	103.1	102.3	105.7	98.6	114.5	94.4
1982[e]	109.6	90.4	130.6	95.8	104.1	103.8	109.6	94.7	120.4	91.0
1983[e]	113.8	90.4	136.9	99.5	108.3	107.7	113.9	94.6	125.1	91.0

S.I.C. 2047 - Dog, Cat, and Other Pet Foods
Output, Input and Productivity Ratios
(1977=100)

Year	Value Added	Labor Input	Capital Input	Materials Input	Energy Input	Gross Output	Total Input	Productivity	Factor Input	Productivity
1963	54.4	66.7	63.2	62.1	77.0	58.8	63.1	93.2	64.1	84.9
1964	54.6	78.1	63.7	62.5	77.6	59.0	64.6	91.4	67.7	80.7
1965	53.3	77.0	65.1	63.9	80.0	59.3	65.8	90.1	68.3	78.0
1966	53.8	76.8	66.4	68.7	88.5	62.1	69.1	89.9	69.2	77.7
1967	65.5	78.1	60.9	73.9	89.7	70.3	70.9	99.1	65.6	99.8
1968	67.4	76.5	70.0	71.1	88.5	69.6	71.5	97.3	71.8	93.9
1969	71.8	79.8	72.4	72.7	90.3	72.4	73.5	98.5	74.4	96.4
1970	74.2	79.8	75.2	75.2	83.6	74.8	75.7	98.7	76.4	97.0
1971	72.8	75.1	79.8	77.3	77.6	75.3	77.8	96.8	78.5	92.8
1972	74.5	85.2	84.6	79.7	81.8	77.3	81.6	94.7	84.8	87.8
1973	67.2	96.2	92.6	91.4	118.8	80.7	92.5	87.2	93.6	71.8
1974	69.7	90.7	99.3	88.1	91.5	79.8	91.5	87.2	97.0	71.9
1975	75.8	95.4	100.6	90.9	91.5	84.1	94.1	89.4	99.2	76.4
1976	87.1	96.4	100.0	96.5	102.4	92.3	97.5	94.6	99.0	87.9
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	106.4	107.4	103.7	97.9	93.3	101.7	100.5	101.2	104.7	101.6
1979	85.0	104.6	106.3	93.7	80.6	89.6	98.2	91.2	105.8	80.3
1980	93.8	102.7	108.3	86.7	75.8	89.8	94.3	95.2	106.8	87.8
1981	94.5	98.4	109.0	79.7	64.5	86.2	89.7	96.1	106.1	89.1
1982[e]	96.1	94.5	109.3	76.7	62.0	85.3	86.6	98.5	105.3	91.3
1983[e]	97.6	94.5	108.7	73.8	59.4	84.5	84.6	99.9	104.8	93.1

[e]Extrapolated

S.I.C. 2095 - Roasted Coffee
Output, Input and Productivity Ratios
(1977=100)

Year	Value Added	Labor Input	Capital Input	Materials Input	Energy Input	Gross Output	Total Input	Productivity	Factor Input	Productivity
1963	305.1	153.7	78.6	132.2	66.1	162.5	120.0	135.4	105.1	290.4
1964	274.5	157.3	82.9	123.3	77.7	150.0	115.2	130.1	109.1	251.7
1965	264.5	146.7	78.3	128.2	76.9	152.2	116.8	130.3	102.4	258.3
1966	285.9	142.7	78.8	127.5	74.4	155.4	116.2	133.7	101.3	282.3
1967	324.7	144.9	82.5	132.0	71.9	165.8	120.3	137.8	104.5	310.7
1968	323.7	146.7	94.1	131.7	72.7	165.5	123.1	134.4	112.6	287.5
1969	360.6	156.8	92.5	124.6	71.9	166.0	118.4	140.3	115.1	313.2
1970	302.0	141.0	90.6	112.4	74.4	145.8	108.6	134.2	108.4	278.7
1971	291.8	131.3	97.4	120.3	76.9	150.5	115.1	130.7	109.3	267.0
1972	284.2	116.3	93.5	109.7	86.8	140.5	106.0	132.6	101.5	280.0
1973	258.1	115.9	96.0	104.7	117.4	132.1	103.3	127.8	103.0	250.6
1974	249.2	109.3	92.4	99.8	94.2	126.3	98.5	128.2	98.3	253.5
1975	283.2	107.5	91.6	109.7	97.5	140.4	105.1	133.7	97.2	291.3
1976	217.0	104.4	99.2	115.1	99.2	133.2	110.4	120.7	101.0	214.8
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	202.8	100.9	94.7	120.0	88.3	134.8	112.5	119.8	96.9	209.3
1979	222.0	103.1	100.4	106.2	94.2	126.8	104.5	121.3	100.9	220.0
1980	222.9	101.8	102.1	106.6	86.8	128.7	105.1	122.5	102.0	218.4
1981	265.4	103.1	105.8	110.2	86.0	137.6	108.5	126.9	105.3	252.1
1982[e]	265.6	105.3	107.0	109.3	85.1	136.9	108.5	126.2	106.7	248.9
1983[e]	250.8	102.6	107.2	108.3	84.3	133.5	107.6	124.1	106.3	235.9

S.I.C. 2099 - Food Preparations, n.e.c.
Output, Input and Productivity Ratios
(1977=100)

Year	Value Added	Labor Input	Capital Input	Materials Input	Energy Input	Gross Output	Total Input	Productivity	Factor Input	Productivity
1963	55.9	78.9	59.6	61.2	48.6	58.5	63.4	92.3	63.4	84.3
1964	58.3	82.0	63.4	63.5	52.1	60.9	66.2	91.9	66.2	83.3
1965	60.0	83.1	65.6	69.0	57.9	64.5	70.1	92.0	70.1	83.7
1966	64.2	86.4	69.3	71.4	61.0	67.8	73.0	92.8	73.0	85.2
1967	69.0	87.6	73.4	81.8	67.5	75.4	80.1	94.1	80.1	88.0
1968	71.9	88.0	74.9	87.9	72.8	79.9	84.0	95.1	84.0	90.5
1969	77.1	92.3	76.3	89.0	78.1	83.1	85.8	96.9	85.8	94.1
1970	86.0	96.4	80.1	89.4	82.1	87.7	87.8	99.9	87.8	100.2
1971	90.2	92.6	84.3	90.2	80.6	90.1	88.8	101.4	88.8	103.4
1972	97.1	90.5	86.7	94.7	84.1	95.8	91.6	104.5	91.6	110.4
1973	106.6	99.9	90.8	98.5	91.7	102.4	96.4	106.2	96.4	113.4
1974	93.3	86.2	93.4	88.9	77.8	90.9	89.6	101.4	89.6	102.7
1975	92.2	93.1	95.0	95.9	82.4	94.0	95.1	98.8	95.1	97.7
1976	114.5	98.7	99.1	103.9	94.2	108.9	101.6	107.2	101.6	115.7
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	109.6	103.4	104.4	104.5	104.3	107.0	104.3	102.6	104.3	105.3
1979	110.0	100.4	107.7	110.8	81.4	110.1	108.0	101.9	105.1	104.7
1980	102.5	104.0	112.6	102.7	86.9	102.4	105.6	97.0	109.6	93.5
1981	98.4	102.0	114.2	104.3	80.4	101.2	106.5	95.0	109.9	89.6
1982[e]	96.4	100.7	115.2	104.3	80.4	100.2	106.6	94.0	110.1	87.6
1983[e]	94.3	98.1	115.1	104.2	80.4	99.2	106.1	93.5	109.1	86.4

[e]Extrapolated

Four Digit S.I.C. Industries
Partial Productivity Ratios
(1977=100)

S.I.C. 2043 - Cereal Breakfast Foods

Gross Output per Unit:

Year	Labor	Capital	Materials	Energy
1963	76.8	70.0	110.0	73.0
1964	79.8	72.2	105.8	76.1
1965	81.3	74.2	104.1	76.2
1966	81.3	75.1	106.0	75.1
1967	83.7	77.9	104.0	70.6
1968	87.9	79.7	107.5	67.8
1969	87.4	81.2	109.6	66.5
1970	91.9	83.4	108.9	71.5
1971	93.0	87.0	105.0	81.4
1972	96.6	91.4	110.7	77.4
1973	90.9	89.2	100.3	68.7
1974	81.0	79.8	91.6	83.2
1975	89.6	89.8	92.2	87.1
1976	97.9	92.8	101.2	83.9
1977	100.0	100.0	100.0	100.0
1978	101.2	97.7	105.8	97.4
1979	108.3	97.1	106.2	105.9
1980	103.3	85.2	115.2	86.8
1981	108.9	84.2	108.3	99.2
1982[e]	114.8	79.5	108.4	99.7
1983[e]	119.1	78.7	108.2	99.4

S.I.C. 2047 - Dog, Cat, and Other Pet Food

Gross Output per Unit:

Labor	Capital	Materials	Energy
88.2	93.0	94.6	76.4
75.6	92.6	94.5	76.1
76.9	91.1	92.7	74.1
80.9	93.6	90.4	70.2
89.9	115.3	95.0	78.3
90.9	99.3	97.9	78.6
90.8	100.0	99.6	80.2
93.7	99.4	99.5	89.4
100.2	94.3	97.4	97.0
90.7	91.4	97.1	94.5
83.9	87.2	88.3	67.9
88.0	80.4	90.6	87.2
88.2	83.6	92.5	91.9
95.7	92.3	95.6	90.1
100.0	100.0	100.0	100.0
94.7	98.1	103.9	109.0
85.7	84.3	95.6	111.2
87.4	82.9	103.6	118.5
87.6	79.1	108.2	133.6
90.3	78.0	111.2	137.6
89.4	77.7	114.5	142.3

S.I.C. 2095 - Roasted Coffee

Gross Output per Unit:

Year	Labor	Capital	Materials	Energy
1963	105.7	206.7	123.0	245.8
1964	95.4	180.9	121.6	193.0
1965	103.7	194.3	118.7	198.0
1966	108.8	197.2	121.9	208.9
1967	114.4	200.9	125.6	230.6
1968	112.8	175.9	125.6	227.5
1969	105.9	179.5	133.3	230.9
1970	103.4	160.9	129.7	196.0
1971	114.6	154.6	125.1	195.8
1972	120.8	150.4	128.1	162.0
1973	114.0	137.6	126.1	112.5
1974	115.6	136.8	126.6	134.1
1975	130.7	153.2	128.0	144.0
1976	127.6	134.4	115.8	134.3
1977	100.0	100.0	100.0	100.0
1978	133.6	142.3	112.3	153.8
1979	123.0	126.3	119.4	134.6
1980	126.4	126.1	120.7	148.3
1981	133.5	130.1	124.9	160.0
1982[e]	130.0	127.9	125.3	160.9
1983[e]	130.1	124.5	123.3	158.4

S.I.C. 2099 - Food Preparations, n.e.c.

Gross Output per Unit:

Labor	Capital	Materials	Energy
74.1	98.2	95.6	120.4
74.2	96.0	95.8	116.7
77.7	98.4	93.5	111.4
78.4	97.8	95.0	111.2
86.1	102.7	92.2	111.7
90.9	106.8	91.0	109.8
90.0	108.9	93.4	106.4
90.9	109.5	98.0	106.8
97.2	106.9	99.9	111.8
105.9	110.5	101.1	113.8
102.5	112.7	104.0	111.6
105.4	97.3	102.3	116.8
100.9	98.9	98.0	114.1
110.4	109.9	104.9	115.6
100.0	100.0	100.0	100.0
103.4	102.5	102.4	102.6
109.7	102.2	99.4	135.3
98.5	90.9	99.7	117.8
99.2	88.6	97.0	125.9
100.5	87.0	96.1	124.6
101.1	86.2	95.2	123.4

[e]Extrapolated

S.I.C. 3079 - Miscellaneous Plastic Products
Output, Input and Productivity Ratios
(1977=100)

Year	Value Added	Labor Input	Capital Input	Materials Input	Energy Input	Gross Output	Total Input	Productivity	Factor Input	Productivity
1958	10.5	28.0	14.7	17.8	20.9	13.8	19.7	70.0	21.2	49.3
1959	12.7	31.7	16.3	21.6	24.5	16.7	22.8	73.1	23.9	53.4
1960	13.7	32.8	18.1	22.3	25.8	17.5	24.0	73.1	25.4	53.8
1961	15.7	33.6	20.1	23.9	29.5	19.4	25.5	75.8	26.8	58.5
1962	17.7	37.5	22.4	26.7	30.9	21.8	28.5	76.4	29.9	59.3
1963	20.5	40.2	25.0	29.7	34.7	24.6	31.3	78.8	32.5	63.3
1964	24.2	44.0	27.9	32.2	40.8	27.8	34.3	81.0	35.9	67.4
1965	29.2	49.1	32.1	37.4	46.7	32.9	39.2	84.0	40.5	72.2
1966	33.3	54.7	37.3	41.5	52.4	37.1	44.1	84.2	45.9	72.6
1967	40.5	59.9	42.8	45.9	60.3	43.0	49.0	87.9	51.2	79.1
1968	47.3	63.9	47.7	55.8	67.0	51.2	56.0	91.5	55.7	85.0
1969	53.6	68.3	53.0	59.9	63.4	56.5	60.3	93.8	60.5	88.5
1970	56.3	67.5	57.6	56.2	64.5	56.4	59.7	94.6	62.5	90.2
1971	61.2	67.0	61.7	61.0	76.6	61.2	63.0	97.1	64.3	95.1
1972	74.4	77.2	68.9	74.9	84.2	74.7	74.1	100.8	73.0	101.9
1973	86.9	85.0	77.6	86.2	77.0	86.7	83.4	103.8	81.3	106.9
1974	83.5	82.9	84.3	80.5	75.2	82.2	82.1	100.1	83.6	99.8
1975	68.5	74.1	85.6	69.5	82.0	69.1	75.3	91.8	80.0	85.7
1976	82.0	83.0	90.6	79.5	94.9	81.0	83.6	96.8	86.8	94.4
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	106.9	105.4	109.9	110.5	94.5	108.4	108.7	99.7	107.7	99.3
1979	108.9	106.4	116.8	101.5	82.9	105.6	106.5	99.1	111.7	97.5
1980	98.4	96.4	87.3	100.3	100.3	121.0	103.8	94.7	110.8	90.5
1981	106.3	113.0	89.0	101.7	102.1	127.5	113.6	93.6	115.0	88.5
1982[e]	96.0	97.9	83.3	94.9	97.4	131.4	106.4	90.2	114.6	82.8
1983[e]	109.2	116.0	94.7	104.4	107.0	136.6	118.8	92.0	122.0	85.6

[e]Extrapolated

S.I.C. 3079 - Miscellaneous Plastic Products

Gross Output per Unit:

Year	Labor	Capital	Materials	Energy
1958	49.3	93.9	77.4	66.0
1959	52.8	102.7	77.4	68.1
1960	53.6	96.7	78.6	68.0
1961	57.7	96.1	81.0	65.6
1963	61.3	98.6	82.9	71.0
1964	63.2	99.6	86.3	68.0
1965	67.1	102.7	88.0	70.5
1966	67.8	99.3	89.3	70.8
1967	71.9	100.7	93.8	71.4
1968	80.1	107.4	91.8	76.4
1969	82.8	106.6	94.4	89.2
1970	83.6	98.0	100.5	87.5
1971	91.4	99.3	100.3	79.9
1972	96.8	108.4	99.8	88.7
1973	101.9	111.6	100.5	112.6
1974	99.1	97.5	102.1	109.3
1975	93.2	80.7	99.4	84.2
1976	97.6	89.4	101.9	85.3
1977	100.0	100.0	100.0	100.0
1978	102.9	98.6	98.1	114.7
1979	99.2	90.4	104.0	127.4
1980	98.1	81.3	102.1	112.7
1981	104.1	83.4	94.0	119.4
1982[e]	98.6	73.1	98.1	115.2
1983[e]	102.1	79.9	94.1	115.3

[e]Extrapolated